

**Quanta Resources Superfund Site, Operable Unit 2
Supplemental NAPL Delineation Sampling
Field Data Interpretation**

To help compare the line of evidence (LOE) data collected during the supplemental NAPL sampling program, Honeywell digitized the field observations to create vertical profiles of this information for each sediment core. This digitized data is displayed on parallel vertical plots to facilitate comparison of these LOEs. To the extent possible, the interpretation of the data was minimized to maintain continuity with the notes prepared during implementation of the field program.

The LOEs included in the vertical profiles include (1) FLUTe paper response, (2) visual observations, (3) UV observations, (4) total PAH (tPAH) concentrations, (5) PID measurements, and (6) the results of the NAPL mobility (water drive) testing.

1. FLUTe paper photograph processing

The FLUTe paper observations recorded during the field sampling program and the associated photograph of FLUTe paper response are included in the boring logs. An automated analysis was conducted to digitize the photographs of the FLUTe paper response to develop a quantitative estimate of the NAPL on the paper. This digitalization process is outlined below using the core from location NN6-10a and depth interval of 15'10" to 16'10" as an example:

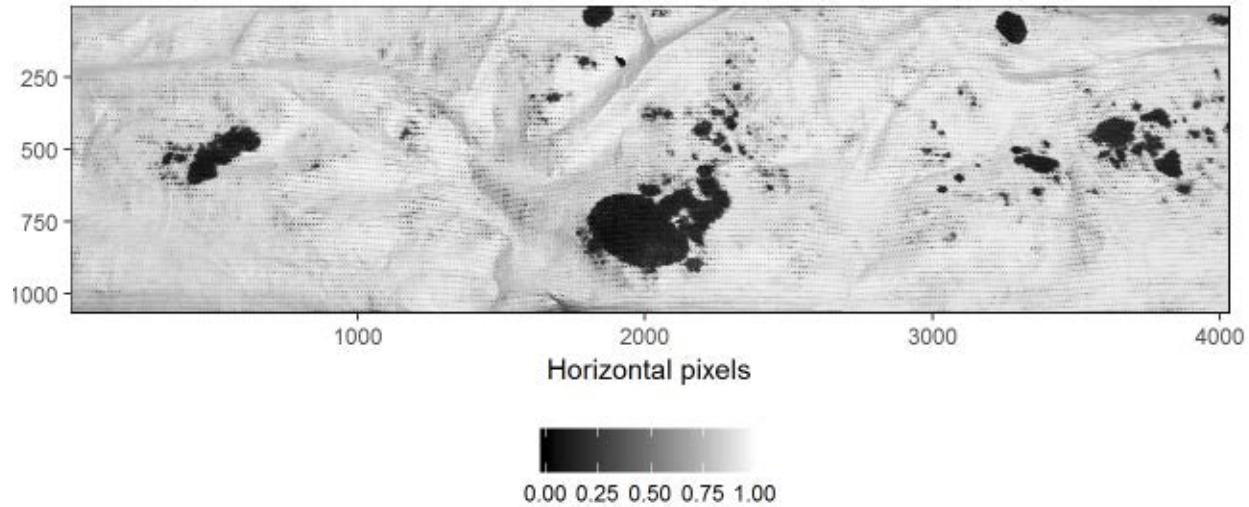
Field Observations:

- at 15'11": 1 - 0.5" x 0.75" response, 1 - 0.25" diameter response
- 15'11"-16'3": pinhole-0.125" diameter responses, 2-10 per inch
- 16'3"-16'5": 1 - 1.25" x 1" response, 1 - 2.25" x 5.125" response, 25% coverage
- 16'5"-16'7": pinhole diameter responses, 2 per inch
- 16'7"-16'11": up to 1.5" diameter responses, 10% coverage

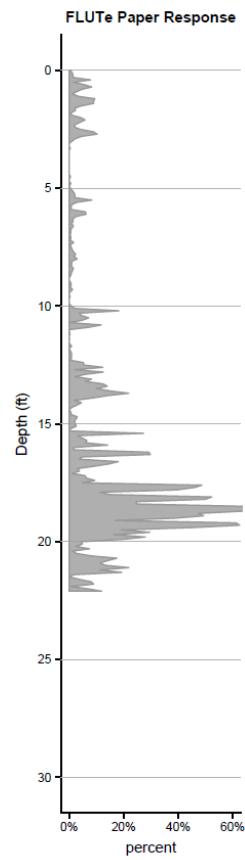
Original Photograph:



Cropped and converted to grayscale:



The percentage of pixels with a grayscale value of 0.25 or lower is then plotted on the vertical profile:



The grayscale threshold of 0.25 was selected to detect the areas with NAPL response and to filter out most of artefacts in the photos that are not NAPL responses, including shadows, smudges on the top of the FLUTE paper, and areas where the ink is visible through the paper. Because the NAPL response is much darker than this threshold, there are almost no instances where a true NAPL response was not recorded by the method. However, there are limited instances where artefacts that appear darker than the threshold were counted as NAPL responses, which adds a level of conservatism to this analysis. Note that given the range of recorded responses, small pinhole responses may be difficult to see on the vertical profile.

2. Visual NAPL Observations:

The percentage of pore space occupied by the NAPL is estimated using the field observations, where small droplets are assumed to be spherical and large droplets are assumed to be "puddles." Assumptions used in the calculation of the amount of NAPL include:

- When a range of size or frequency is given (e.g., pinhole to 0.25" droplets, 5-10/inch), the average value was used.
- Pinhole observations are assumed to be approximately 1/64" in diameter.
- Large droplets (>0.25" diameter) are assumed to be cylindrical "puddles" with a layer thickness of 0.125". Smaller droplets ($\leq 0.25"$ diameter) are assumed to be spheres.
- Porosity = 0.76 (from *Geotechnical Sediment Evaluation*, ENVIRON, 2014).
- Total pore space is assumed to be the volume of core examined multiplied by the porosity.

Observations of small amounts of NAPL may be difficult to see on the vertical profiles. For example, a description of *0.25" diameter droplets, 5 to 10 per inch* would be calculated as approximately 1.1-2.3% on the vertical profiles (plotted as the average of 1.7%). One example of this is at PR1-4, 6'10" to 8'0" (as shown on the right).

The percentage of NAPL in this example is calculated as follows:

- 1" core segment (where only half of the core segment is examined) has a total pore space volume of ~3.5 cubic inches:

$$\text{Volume of half of core segment} = \frac{1}{2} \times \pi \times r^2 \times h \times \text{porosity}$$

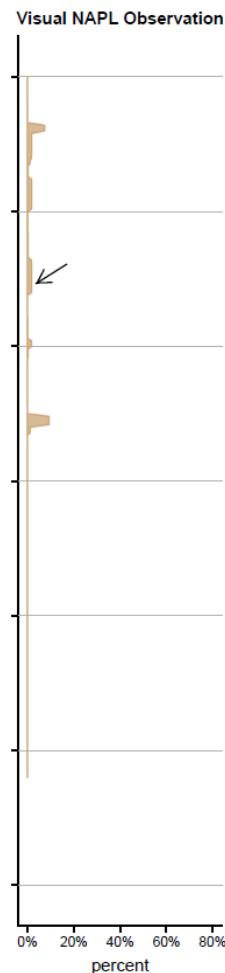
Where:

$$r = 1.72 \text{ inches}$$

$$h = 1 \text{ inch}$$

- A 0.25" diameter spherical droplet has a volume of ~0.008 cubic inches

$$\text{Volume of spherical NAPL droplet} = \frac{4}{3} \times \pi \times r^3$$

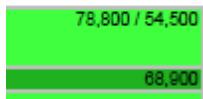


- If there are 5-10 droplets per inch, the volume of NAPL in a 1" core segment would be 0.04 to 0.08 cubic inches.
- The percent NAPL saturation is 0.04 to 0.08 cubic inches divided by 3.5 cubic inches, or an average of 0.06 cubic inches, divided by 3.5 cubic inches, which is 1.7%.
- 100% NAPL occupying the pore space volume in half the core would be equivalent to over 400 0.25-inch diameter droplets.

3. Total PAHs

- 2-ft samples
- 6-in samples

Note: Results that exceed the scale are printed on the corresponding sample bar. Duplicate results are shown separately, as seen below.



4. UV

The portion of the core surface with white/blue UV responses and/or red-orange (or red-brown, etc.) responses was calculated using the following assumptions, unless the percent of the area covered by the response was estimated in the field:

- When a range of size or frequency is given (e.g., pinhead to 0.125" responses, 5 to 10 per inch), the average value was used
- Pinhole observations are assumed to be approximately 1/64" in diameter
- If the thickness of fibrous material was not specified, it was assumed to have a thickness of 1/32". The length of fibrous material was typically noted in the field, so the length and assumed width were used to calculate the area of fluorescence

Observations of small UV responses may be difficult to see on the vertical profiles:

- 1" core segment (where the surface of the opened core is examined) has a total area of ~3.4 square inches:

$$\text{Area of exposed face of core segment} = 2 \times r \times h$$

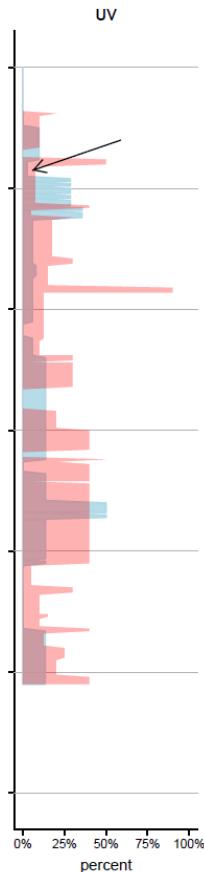
Where:

$$r = 1.72 \text{ inches}$$

$$h = 1 \text{ inch}$$

- A 0.125" diameter round response has an area of ~0.012 square inches

$$\text{Area of round response} = \pi \times r^2$$



- A description of *0.125" responses, 5 to 10 per inch* would be approximately 1.8-3.6% on the vertical profiles (plotted as the average of 2.7%), as shown on the right.

5. PID

At locations where multiple readings were collected, the maximum value is shown.

6. Water Drive Results

The depths and results of the water drive tests are indicated on the vertical profiles as a horizontal line indicating the depth of from which the test sample was collected and a text box noting the results of the test (i.e., whether or not NAPL was expressed from the sample during the water drive test and the quantity of NAPL observed in the collected chamber as estimated by the laboratory). The color of the text box is also indicative of the result of the test:

- Black = No NAPL observed
- Blue = <1 mm diameter dot or <10 uL NAPL observed
- Green = 1-10 mm diameter dot of NAPL observed
- Red = 20-40 mm diameter bleb of NAPL observed

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
A-03b	A-3b-000006	0	0.5	N
A-03b	A-3b-006012	0.5	1	N
A-03b	A-3b-012036	1	3	N
A-03b	DUP-09	1	3	FD
A-03b	A-3b-030036	2.5	3	N
A-03b	A-3b-036050	3	5	N
A-03b	A-3b-042048	3.5	4	N
A-03c	A-03C-000006	0	0.5	N
A-03c	A-03C-006012	0.5	1	N
A-03c	A-03C-012036	1	3	N
A-03c	A-03C-030036	2.5	3	N
A-03c	A-03C-036060	3	5	N
A-03c	A-03C-045051	3.75	4.25	N
A-03c	A-03C-072096	6	8	N
A-03c	A-03C-096120	8	10	N
A-03c	A-03C-105111	8.75	9.25	N
A-03c	A-03C-156180	13	15	N
A-03c	DUP-23	13	15	FD
A-03c	A-03C-168174	14	14.5	N
A-03c	A-03C-216240	18	20	N
A-03c	A-03C-222228	18.5	19	N
A-03c	A-03C-252276	21	23	N
A-03c	A-03C-259265	21.58	22.08	N
A-03c	A-03C-300324	25	27	N
A-03c	A-03C-302308	25.17	25.67	N
A-03c-1	A-03C-1-000006	0	0.5	N
A-03c-1	A-03c-1-006012	0.5	1	N
A-03c-1	A-03C-1-012036	1	3	N
A-03c-1	A-03C-1-030036	2.5	3	N
A-03c-1	A-03C-1-036060	3	5	N
A-03c-1	DUP-33	3	5	FD
A-03c-1	A-03C-1-054060	4.5	5	N
A-03c-1	A-03C-1-060084	5	7	N
A-03c-1	A-03C-1-096120	8	10	N
A-03c-1	A-03C-1-102108	8.5	9	N
A-03c-1	A-03c-1-149173	12.42	14.42	N
A-03c-1	A-03C-1-152158	12.67	13.17	N
A-03c-1	A-03C-1-216240	18	20	N
A-03c-1	A-03C-1-219225	18.25	18.75	N

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Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
A-03c-1	A-03C-1-252276	21	23	N
A-03c-1	A-03C-1-258264	21.5	22	N
A-03c-1	A-03C-1-300319	25	26.58	N
A-03c-1	A-03C-1-313319	26.08	26.58	N
A-08b	A-08b-000006	0	0.5	N
A-08b	A-08b-006012	0.5	1	N
A-08b	A-08b-012036	1	3	N
A-08b	A-08b-030036	2.5	3	N
A-08b	A-08b-036060	3	5	N
A-08b	A-08b-051057	4.25	4.75	N
A-08b	A-08b-072096	6	8	N
A-08b	A-08b-096120	8	10	N
A-08b	A-08b-097103	8.08	8.58	N
A-08b	A-08b-126132	10.5	11	N
A-08b	A-08b-156180	13	15	N
A-08b	A-08b-174180	14.5	15	N
A-08b	A-08b-204228	17	19	N
A-08b	A-08b-207213	17.25	17.75	N
A-13a	A-13A-000006	0	0.5	N
A-13a	A-13A-006012	0.5	1	N
A-13a	A-13A-012036	1	3	N
A-13a	DUP-04	1	3	FD
A-13a	A-13A-027033	2.25	2.75	N
A-13a	A-13A-036060	3	5	N
A-13a	A-13A-051057	4.25	4.75	N
A-13a	A-13A-060084	5	7	N
A-13a	A-13A-072078	6	6.5	N
A-13a	A-13A-096120	8	10	N
A-13a	A-13A-156180	13	15	N
A-13a	DUP-06	13	15	FD
A-13a	A-13A-164170	13.67	14.17	N
A-13a	A-13A-190214	15.83	17.83	N
A-13a	A-13A-208214	17.33	17.83	N
A-14a	A-14a-000006	0	0.5	N
A-14a	A-14a-006012	0.5	1	N
A-14a	A-14a-012036	1	3	N
A-14a	DUP-12	1	3	FD
A-14a	A-14a-030036	2.5	3	N
A-14a	A-14a-036060	3	5	N

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A-14a	A-14a-054060	4.5	5	N
A-14a	A-14a-060084	5	7	N
A-14a	A-14a-096120	8	10	N
A-14a	A-14a-102108	8.5	9	N
A-14a	A-14a-132138	11	11.5	N
A-14a	A-14a-132156	11	13	N
A-14a	A-14a-217240	18.08	20	N
A-14a	A-14a-234240	19.5	20	N
A-14a	A-14a-264288	22	24	N
A-14a	DUP-14	22	24	FD
A-14a	A-14a-272278	22.67	23.17	N
A-14a	A-14a-300324	25	27	N
A-14a	A-14a-306312	25.5	26	N
A-14a-1	A-14a-1-000006	0	0.5	N
A-14a-1	A-14a-1-006012	0.5	1	N
A-14a-1	A-14a-1-012036	1	3	N
A-14a-1	A-14a-1-021027	1.75	2.25	N
A-14a-1	A-14a-1-036060	3	5	N
A-14a-1	A-14a-1-054060	4.5	5	N
A-14a-1	A-14a-1-060084	5	7	N
A-14a-1	A-14a-1-084108	7	9	N
A-14a-1	A-14a-1-094100	7.83	8.33	N
A-14a-1	A-14a-1-156180	13	15	N
A-14a-1	A-14a-1-174180	14.5	15	N
A-14a-1	A-14a-1-180204	15	17	N
A-14a-1	A-14a-1-191197	15.92	16.42	N
A-14a-1	A-14a-1-264288	22	24	N
A-14a-1	A-14a-1-278284	23.17	23.67	N
A-14a-1	A-14a-1-334358	27.83	29.83	N
A-14a-1	A-14a-1-352358	29.33	29.83	N
A-23a	A-23A-000006	0	0.5	N
A-23a	A-23A-006012	0.5	1	N
A-23a	A-23A-012036	1	3	N
A-23a	A-23A-023029	1.92	2.42	N
A-23a	A-23A-036057	3	4.75	N
A-23a	A-23A-039045	3.25	3.75	N
A-23a	A-23A-060084	5	7	N
A-23a	DUP-03	5	7	FD
A-23a	A-23A-096117	8	9.75	N

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Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
A-23a	A-23A-108114	9	9.5	N
A-23a	A-23A-132156	11	13	N
A-23a	A-23A-138144	11.5	12	N
A-23a	A-23A-204228	17	19	N
A-23a	A-23A-216222	18	18.5	N
A-23a	A-23A-237261	19.75	21.75	N
A-23a	A-23A-240246	20	20.5	N
AA0-2	AA0-2-000006	0	0.5	N
AA0-2	AA0-2-006012	0.5	1	N
AA0-2	AA0-2-012036	1	3	N
AA0-2	AA0-2-018024	1.5	2	N
AA0-2	AA0-2-036060	3	5	N
AA0-2	AA0-2-051057	4.25	4.75	N
AA0-2	AA0-2-060084	5	7	N
AA0-2	AA0-2-096120	8	10	N
AA0-2	DUP-19	8	10	FD
AA0-2	AA0-2-110116	9.17	9.67	N
AA0-2	AA0-2-156180	13	15	N
AA0-2	AA0-2-162168	13.5	14	N
AA0-2	AA0-2-216240	18	20	N
AA0-2	AA0-2-218224	18.17	18.67	N
AA0-2	AA0-2-276300	23	25	N
AA0-2	AA0-2-291297	24.25	24.75	N
AA0-2	AA0-2-300319	25	26.58	N
AA0-2	AA0-2-307313	25.58	26.08	N
AA1-1	AA1-1-000006	0	0.5	N
AA1-1	AA1-1-006012	0.5	1	N
AA1-1	AA1-1-012036	1	3	N
AA1-1	AA1-1-030036	2.5	3	N
AA1-1	AA1-1-036060	3	5	N
AA1-1	AA1-1-045051	3.75	4.25	N
AA1-1	AA1-1-060084	5	7	N
AA1-1	DUP-17	5	7	FD
AA1-1	AA1-1-096120	8	10	N
AA1-1	AA1-1-114120	9.5	10	N
AA1-1	AA1-1-156180	13	15	N
AA1-1	AA1-1-174180	14.5	15	N
AA1-1	AA1-1-216240	18	20	N
AA1-1	AA1-1-221227	18.42	18.92	N

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Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
AA1-1	AA1-1-240261	20	21.75	N
AA1-1	AA1-1-241247	20.08	20.58	N
AA1-2	AA1-2-000006	0	0.5	N
AA1-2	AA1-2-006012	0.5	1	N
AA1-2	AA1-2-012036	1	3	N
AA1-2	AA1-2-030036	2.5	3	N
AA1-2	AA1-2-036060	3	5	N
AA1-2	DUP-01	3	5	FD
AA1-2	AA1-2-039045	3.25	3.75	N
AA1-2	AA1-2-060084	5	7	N
AA1-2	AA1-2-096120	8	10	N
AA1-2	AA1-2-111117	9.25	9.75	N
AA1-2	AA1-2-131155	10.92	12.92	N
AA1-2	AA1-2-149155	12.42	12.92	N
AA1-2	AA1-2-180204	15	17	N
AA1-2	AA1-2-198204	16.5	17	N
AA1-3	AA1-3-000006	0	0.5	N
AA1-3	AA1-3-006012	0.5	1	N
AA1-3	AA1-3-012036	1	3	N
AA1-3	AA1-3-030036	2.5	3	N
AA1-3	AA1-3-036060	3	5	N
AA1-3	AA1-3-053059	4.42	4.92	N
AA1-3	AA1-3-072096	6	8	N
AA1-3	AA1-3-086092	7.17	7.67	N
AA1-3	AA1-3-096120	8	10	N
AA1-3	AA1-3-120144	10	12	N
AA1-3	AA1-3-133139	11.08	11.58	N
AA1-4	AA1-4-000006	0	0.5	N
AA1-4	AA1-4-006012	0.5	1	N
AA1-4	AA1-4-012036	1	3	N
AA1-4	AA1-4-030036	2.5	3	N
AA1-4	AA1-4-036060	3	5	N
AA1-4	AA1-4-054060	4.5	5	N
AA1-4	AA1-4-060084	5	7	N
AA1-4	AA1-4-074080	6.17	6.67	N
AA2-1	AA2-1-000006	0	0.5	N
AA2-1	AA2-1-006012	0.5	1	N
AA2-1	AA2-1-012036	1	3	N
AA2-1	AA2-1-030036	2.5	3	N

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AA2-1	AA2-1-036060	3	5	N
AA2-1	AA2-1-054060	4.5	5	N
AA2-1	AA2-1-060084	5	7	N
AA2-1	AA2-1-084108	7	9	N
AA2-1	DUP-30	7	9	FD
AA2-1	AA2-1-096102	8	8.5	N
AA2-1	AA2-1-150174	12.5	14.5	N
AA2-1	AA2-1-162168	13.5	14	N
AA2-1	AA2-1-214238	17.83	19.83	N
AA2-1	AA2-1-230236	19.17	19.67	N
AA2-1	AA2-1-264288	22	24	N
AA2-1	DUP-32	22	24	FD
AA2-1	AA2-1-276282	23	23.5	N
AA2-1	AA2-1-312336	26	28	N
AA2-1	AA2-1-320326	26.67	27.17	N
AA2-3	AA2-3-000006	0	0.5	N
AA2-3	AA2-3-006012	0.5	1	N
AA2-3	AA2-3-012036	1	3	N
AA2-3	AA2-3-027033	2.25	2.75	N
AA2-3	AA2-3-036060	3	5	N
AA2-3	AA2-3-054060	4.5	5	N
AA2-3	AA2-3-060072	5	6	N
AA2-3	AA2-3-072120	8	10	N
AA2-3	AA2-3-114120	9.5	10	N
AA2-3	AA2-3-144168	12	14	N
AA2-3	AA2-3-147153	12.25	12.75	N
AA2-3	AA2-3-216240	18	20	N
AA2-3	DUP-21	18	20	FD
AA2-3	AA2-3-223229	18.58	19.08	N
AA2-3	AA2-3-245269	20.42	22.42	N
AA2-3	AA2-3-263269	21.92	22.42	N
AA2-4	AA2-4-000006	0	0.5	N
AA2-4	AA2-4-006012	0.5	1	N
AA2-4	AA2-4-012036	1	3	N
AA2-4	AA2-4-030036	2.5	3	N
AA2-4	AA2-4-036060	3	5	N
AA2-4	AA2-4-052058	4.33	4.83	N
AA2-4	AA2-4-060084	5	7	N
AA2-4	AA2-4-062068	5.17	5.67	N

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AA2-4	AA2-4-096120	8	10	N
AA2-4	DUP-22	8	10	FD
AA2-4	AA2-4-147171	12.25	14.25	N
AA2-4	AA2-4-152158	12.67	13.17	N
AA2-4	AA2-4-180204	15	17	N
AA2-4	AA2-4-184190	15.33	15.83	N
AA2-4	AA2-4-264288	22	24	N
AA2-4	AA2-4-271277	22.58	23.08	N
AA2-4	AA2-4-300306	25	25.5	N
AA2-4	AA2-4-300319	25	26.58	N
NN6-10a	NN6-10a-000006	0	0.5	N
NN6-10a	NN6-10a-006012	0.5	1	N
NN6-10a	NN6-10a-012036	1	3	N
NN6-10a	NN6-10a-029035	2.42	2.92	N
NN6-10a	NN6-10a-036060	3	5	N
NN6-10a	NN6-10a-054060	4.5	5	N
NN6-10a	NN6-10a-084108	7	9	N
NN6-10a	NN6-10a-093099	7.75	8.25	N
NN6-10a	NN6-10a-156180	13	15	N
NN6-10a	NN6-10a-162168	13.5	14	N
NN6-10a	NN6-10a-216240	18	20	N
NN6-10a	DUP-11	18	20	FD
NN6-10a	NN6-10a-231237	19.25	19.75	N
NN6-10a	NN6-10a-242266	20.17	22.17	N
NN6-10a	NN6-10a-260266	21.67	22.17	N
NN6-10a-1	000006	0	0.5	N
NN6-10a-1	006012	0.5	1	N
NN6-10a-1	012036	1	3	N
NN6-10a-1	021027	1.75	2.25	N
NN6-10a-1	036060	3	5	N
NN6-10a-1	DUP-25	3	5	FD
NN6-10a-1	038044	3.17	3.67	N
NN6-10a-1	060084	5	7	N
NN6-10a-1	084108	7	9	N
NN6-10a-1	092098	7.67	8.17	N
NN6-10a-1	132138	11	11.5	N
NN6-10a-1	132156	11	13	N
NN6-10a-1	180204	15	17	N
NN6-10a-1	192198	16	16.5	N

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
NN6-10a-1	252276	21	23	N
NN6-10a-1	260266	21.67	22.17	N
NN6-10a-1	300324	25	27	N
NN6-10a-1	315321	26.25	26.75	N
NN6-10a-2	000006	0	0.5	N
NN6-10a-2	006012	0.5	1	N
NN6-10a-2	012036	1	3	N
NN6-10a-2	030036	2.5	3	N
NN6-10a-2	036060	3	5	N
NN6-10a-2	047053	3.92	4.42	N
NN6-10a-2	060084	5	7	N
NN6-10a-2	096120	8	10	N
NN6-10a-2	111117	9.25	9.75	N
NN6-10a-2	144168	12	14	N
NN6-10a-2	152158	12.67	13.17	N
NN6-10a-2	180204	15	17	N
NN6-10a-2	189195	15.75	16.25	N
NN6-10a-2	276300	23	25	N
NN6-10a-2	286292	23.83	24.33	N
NN6-10a-2	310334	25.83	27.83	N
NN6-10a-2	328334	27.33	27.83	N
PR1-4	PR1-4-000006	0	0.5	N
PR1-4	PR1-4-006012	0.5	1	N
PR1-4	PR1-4-012036	1	3	N
PR1-4	DUP-07	1	3	FD
PR1-4	PR1-4-014020	1.17	1.67	N
PR1-4	PR1-4-036060	3	5	N
PR1-4	PR1-4-054060	4.5	5	N
PR1-4	PR1-4-060084	5	7	N
PR1-4	PR1-4-096120	8	10	N
PR1-4	PR1-4-108114	9	9.5	N
PR1-4	PR1-4-144168	12	14	N
PR1-4	PR1-4-152158	12.67	13.17	N
PR1-4	PR1-4-180186	15	15.5	N
PR1-4	PR1-4-180204	15	17	N
PR1-4	PR1-4-252276	21	23	N
PR1-4	PR1-4-261267	21.75	22.25	N
PR1-4-1	PR1-4-1-000006	0	0.5	N
PR1-4-1	PR1-4-1-006012	0.5	1	N

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
PR1-4-1	PR1-4-1-012036	1	3	N
PR1-4-1	PR1-4-1-030036	2.5	3	N
PR1-4-1	PR1-4-1-036060	3	5	N
PR1-4-1	PR1-4-1-054060	4.5	5	N
PR1-4-1	PR1-4-1-060084	5	7	N
PR1-4-1	PR1-4-1-066072	5.5	6	N
PR1-4-1	PR1-4-1-096120	8	10	N
PR1-4-1	DUP-20	8	10	FD
PR1-4-1	PR1-4-1-144168	12	14	N
PR1-4-1	PR1-4-1-151157	12.58	13.08	N
PR1-5	PR1-5-000006	0	0.5	N
PR1-5	PR1-5-006012	0.5	1	N
PR1-5	PR1-5-012036	1	3	N
PR1-5	PR1-5-029035	2.42	2.92	N
PR1-5	PR1-5-036060	3	5	N
PR1-5	DUP15	3	5	FD
PR1-5	PR1-5-054060	4.5	5	N
PR1-5	PR1-5-060084	5	7	N
PR1-5	PR1-5-072078	6	6.5	N
PR1-5	PR1-5-096120	8	10	N
PR1-5	PR1-5-132156	11	13	N
PR1-5	PR1-5-138144	11.5	12	N
PR1-5	PR1-5-216240	18	20	N
PR1-5	PR1-5-221227	18.42	18.92	N
PR1-5	PR1-5-268292	22.33	24.33	N
PR1-5	PR1-5-286292	23.83	24.33	N
PR1-5-1	PR1-5-1-000006	0	0.5	N
PR1-5-1	PR1-5-1-006012	0.5	1	N
PR1-5-1	PR1-5-1-012036	1	3	N
PR1-5-1	DUP-18	1	3	FD
PR1-5-1	PR1-5-1-030036	2.5	3	N
PR1-5-1	PR1-5-1-036060	3	5	N
PR1-5-1	PR1-5-1-054060	4.5	5	N
PR1-5-1	PR1-5-1-060084	5	7	N
PR1-5-1	PR1-5-1-096120	8	10	N
PR1-5-1	PR1-5-1-111117	9.25	9.75	N
PR1-5-1	PR1-5-1-156180	13	15	N
PR1-5-1	PR1-5-1-174180	14.5	15	N
PR1-5-1	PR1-5-1-180192	15	16	N

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
PR1-5-1	PR1-5-1-187193	15.58	16.08	N
PR1-5-1	PR1-5-1-276300	23	25	N
PR1-5-1	PR1-5-1-291297	24.25	24.75	N
PR1-5-2	PR1-5-2-000006	0	0.5	N
PR1-5-2	PR1-5-2-006012	0.5	1	N
PR1-5-2	PR1-5-2-012036	1	3	N
PR1-5-2	PR1-5-2-030036	2.5	3	N
PR1-5-2	PR1-5-2-036060	3	5	N
PR1-5-2	PR1-5-2-054060	4.5	5	N
PR1-5-2	PR1-5-2-060084	5	7	N
PR1-5-2	PR1-5-2-084108	7	9	N
PR1-5-2	PR1-5-2-090096	7.5	8	N
PR1-5-2	PR1-5-2-144168	12	14	N
PR1-5-2	PR1-5-2-149155	12.42	12.92	N
PR1-5-2	PR1-5-2-204228	17	19	N
PR1-5-2	PR1-5-2-218224	18.17	18.67	N
PR1-5-2	PR1-5-2-254278	21.17	23.17	N
PR1-5-2	DUP-28	21.17	23.17	FD
PR1-5-2	PR1-5-2-262268	21.83	22.33	N
PR1-5-2	PR1-5-2-300306	25	25.5	N
PR1-5-2	PR1-5-2-300314	25	26.17	N
PR1-6	PR1-6-000006	0	0.5	N
PR1-6	PR1-6-006012	0.5	1	N
PR1-6	PR1-6-012036	1	3	N
PR1-6	DUP16	1	3	FD
PR1-6	PR1-6-030036	2.5	3	N
PR1-6	PR1-6-036060	3	5	N
PR1-6	PR1-6-046052	3.83	4.33	N
PR1-6	PR1-6-060084	5	7	N
PR1-6	PR1-6-096120	8	10	N
PR1-6	PR1-6-109115	9.08	9.58	N
PR1-6	PR1-6-162186	13.5	15.5	N
PR1-6	PR1-6-174180	14.5	15	N
PR1-6	PR1-6-216240	18	20	N
PR1-6	PR1-6-231237	19.25	19.75	N
PR1-6	PR1-6-276300	23	25	N
PR1-6	PR1-6-280286	23.33	23.83	N
PR1-6-1	PR1-6-1-000006	0	0.5	N
PR1-6-1	PR1-6-1-006012	0.5	1	N

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
PR1-6-1	PR1-6-1-012036	1	3	N
PR1-6-1	PR1-6-1-021027	1.75	2.25	N
PR1-6-1	PR1-6-1-036060	3	5	N
PR1-6-1	PR1-6-1-054060	4.5	5	N
PR1-6-1	PR1-6-1-060084	5	7	N
PR1-6-1	PR1-6-1-096120	8	10	N
PR1-6-1	PR1-6-1-114120	9.5	10	N
PR1-6-1	PR1-6-1-132156	11	13	N
PR1-6-1	DUP-27	11	13	FD
PR1-6-1	PR1-6-1-138144	11.5	12	N
PR1-6-1	PR1-6-1-204228	17	19	N
PR1-6-1	PR1-6-1-214220	17.83	18.33	N
PR1-6-1	PR1-6-1-264288	22	24	N
PR1-6-1	PR1-6-1-270276	22.5	23	N
PR1-6-1	PR1-6-1-336360	28	30	N
PR1-6-1	PR1-6-1-354360	29.5	30	N
PR1-7	PR1-7-000006	0	0.5	N
PR1-7	PR1-7-006012	0.5	1	N
PR1-7	PR1-7-012036	1	3	N
PR1-7	DUP-13	1	3	FD
PR1-7	PR1-7-030036	2.5	3	N
PR1-7	PR1-7-036060	3	5	N
PR1-7	PR1-7-054060	4.5	5	N
PR1-7	PR1-7-062086	5.17	7.17	N
PR1-7	PR1-7-080086	6.67	7.17	N
PR1-7	PR1-7-096120	8	10	N
PR1-7	PR1-7-132156	11	13	N
PR1-7	PR1-7-139145	11.58	12.08	N
PR1-7	PR1-7-216240	18	20	N
PR1-7	PR1-7-234240	19.5	20	N
PR1-7	PR1-7-252276	21	23	N
PR1-7	PR1-7-259265	21.58	22.08	N
PR1-7	PR1-7-326350	27.17	29.17	N
PR1-7	PR1-7-343349	28.58	29.08	N
PR1-7-1	PR1-7-1-000006	0	0.5	N
PR1-7-1	PR1-7-1-006012	0.5	1	N
PR1-7-1	PR1-7-1-012036	1	3	N
PR1-7-1	PR1-7-1-030036	2.5	3	N
PR1-7-1	PR1-7-1-036060	3	5	N

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
PR1-7-1	DUP-31	3	5	FD
PR1-7-1	PR1-7-1-054060	4.5	5	N
PR1-7-1	PR1-7-1-060084	5	7	N
PR1-7-1	PR1-7-1-064070	5.33	5.83	N
PR1-7-1	PR1-7-1-096120	8	10	N
PR1-7-1	PR1-7-1-156180	13	15	N
PR1-7-1	PR1-7-1-171177	14.25	14.75	N
PR1-7-1	PR1-7-1-216240	18	20	N
PR1-7-1	PR1-7-1-234240	19.5	20	N
PR1-7-1	PR1-7-1-245269	20.42	22.42	N
PR1-7-1	PR1-7-1-252258	21	21.5	N
PR1-7-1	PR1-7-1-300306	25	25.5	N
PR1-7-1	PR1-7-1-300324	25	27	N
PR1-8	PR1-8-000006	0	0.5	N
PR1-8	PR1-8-006012	0.5	1	N
PR1-8	PR1-8-012036	1	3	N
PR1-8	PR1-8-027033	2.25	2.75	N
PR1-8	PR1-8-036060	3	5	N
PR1-8	PR1-8-042048	3.5	4	N
PR1-8	PR1-8-060084	5	7	N
PR1-8	PR1-8-096120	8	10	N
PR1-8	PR1-8-097103	8.08	8.58	N
PR1-8	PR1-8-156180	13	15	N
PR1-8	PR1-8-157163	13.08	13.58	N
PR1-8	PR1-8-192216	16	18	N
PR1-8	PR1-8-210216	17.5	18	N
PR1-8	PR1-8-264288	22	24	N
PR1-8	PR1-8-268274	22.33	22.83	N
PR1-8	PR1-8-300324	25	27	N
PR1-8	PR1-8-305311	25.42	25.92	N
PR1-9	PR1-9-000006	0	0.5	N
PR1-9	PR1-9-006012	0.5	1	N
PR1-9	PR1-9-012036	1	3	N
PR1-9	PR1-9-021027	1.75	2.25	N
PR1-9	PR1-9-036060	3	5	N
PR1-9	PR1-9-039045	3.25	3.75	N
PR1-9	PR1-9-060084	5	7	N
PR1-9	PR1-9-096120	8	10	N
PR1-9	PR1-9-106112	8.83	9.33	N

Sediment Sample Summary
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Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
PR1-9	PR1-9-134158	11.17	13.17	N
PR1-9	PR1-9-141147	11.75	12.25	N
PR1-9	PR1-9-192216	16	18	N
PR1-9	DUP-10	16	18	FD
PR1-9	PR1-9-201207	16.75	17.25	N
PR1-9	PR1-9-246270	20.5	22.5	N
PR1-9	PR1-9-252258	21	21.5	N
PR1-9-1	PR1-9-1-000006	0	0.5	N
PR1-9-1	PR1-9-1-006012	0.5	1	N
PR1-9-1	PR1-9-1-012036	1	3	N
PR1-9-1	PR1-9-1-022028	1.83	2.33	N
PR1-9-1	PR1-9-1-036060	3	5	N
PR1-9-1	PR1-9-1-037043	3.08	3.58	N
PR1-9-1	PR1-9-1-060084	5	7	N
PR1-9-1	PR1-9-1-066072	5.5	6	N
PR1-9-1	PR1-9-1-096120	8	10	N
PR1-9-1	PR1-9-1-144168	12	14	N
PR1-9-1	DUP-24	12	14	FD
PR1-9-1	PR1-9-1-147153	12.25	12.75	N
PR1-9-1	PR1-9-1-216240	18	20	N
PR1-9-1	PR1-9-1-234240	19.5	20	N
PR1-9-1	PR1-9-1-240246	20	20.5	N
PR1-9-1	PR1-9-1-240264	20	22	N
PR1-9-1	PR1-9-1-304328	25.33	27.33	N
PR1-9-1	PR1-9-1-309315	25.75	26.25	N
PR1-9-2	PR1-9-2-000006	0	0.5	N
PR1-9-2	PR1-9-2-006012	0.5	1	N
PR1-9-2	PR1-9-2-012036	1	3	N
PR1-9-2	PR1-9-2-021027	1.75	2.25	N
PR1-9-2	PR1-9-2-036060	3	5	N
PR1-9-2	PR1-9-2-052058	4.33	4.83	N
PR1-9-2	PR1-9-2-060084	5	7	N
PR1-9-2	PR1-9-2-073079	6.08	6.58	N
PR1-9-2	PR1-9-2-096120	8	10	N
PR1-9-2	PR1-9-2-156180	13	15	N
PR1-9-2	PR1-9-2-174180	14.5	15	N
PR1-9-2	PR1-9-2-204228	17	19	N
PR1-9-2	PR1-9-2-210216	17.5	18	N
PR1-9-2	PR1-9-2-240264	20	22	N

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
PR1-9-2	PR1-9-2-255261	21.25	21.75	N
PR1-9-2	PR1-9-2-300306	25	25.5	N
PR1-9-2	PR1-9-2-300324	25	27	N
PR2-8	PR2-8-000006	0	0.5	N
PR2-8	PR2-8-006012	0.5	1	N
PR2-8	PR2-8-012036	1	3	N
PR2-8	DUP-02	1	3	FD
PR2-8	PR2-8-030036	2.5	3	N
PR2-8	PR2-8-036060	3	5	N
PR2-8	PR2-8-054060	4.5	5	N
PR2-8	PR2-8-060084	5	7	N
PR2-8	PR2-8-096120	8	10	N
PR2-8	PR2-8-114120	9.5	10	N
PR2-8	PR2-8-152158	12.67	13.17	N
PR2-8	PR2-8-152176	12.67	14.67	N
PR2-8	PR2-8-201225	16.75	18.75	N
PR2-8	PR2-8-219225	18.25	18.75	N
TTA-04-D	TTA-04-D-000006	0	0.5	N
TTA-04-D	TTA-04-D-006012	0.5	1	N
TTA-04-D	TTA-04-D-012036	1	3	N
TTA-04-D	TTA-04-D-030036	2.5	3	N
TTA-04-D	TTA-04-D-032034	2.67	2.83	N
TTA-04-D	TTA-04-D-036060	3	5	N
TTA-04-D	TTA-04-D-045051	3.75	4.25	N
TTA-04-D	TTA-04-D-060084	5	7	N
TTA-04-D	TTA-04-D-072078	6	6.5	N
TTA-04-D	TTA-04-D-097109	8.08	9.08	N
TTA-05-D	TTA-05-D-000006	0	0.5	N
TTA-05-D	TTA-05-D-006012	0.5	1	N
TTA-05-D	TTA-05-D-012036	1	3	N
TTA-05-D	TTA-05-D-028034	2.33	2.83	N
TTA-05-D	TTA-05-D-036060	3	5	N
TTA-05-D	TTA-05-D-044050	3.67	4.17	N
TTA-05-D	TTA-05-D-060084	5	7	N
TTA-05-D	TTA-05-D-072078	6	6.5	N
TTA-05-D	TTA-05-D-094118	7.83	9.83	N
TTA-06-D	TTA-06-D-000006	0	0.5	N
TTA-06-D	TTA-06-D-006012	0.5	1	N
TTA-06-D	TTA-06-D-012036	1	3	N

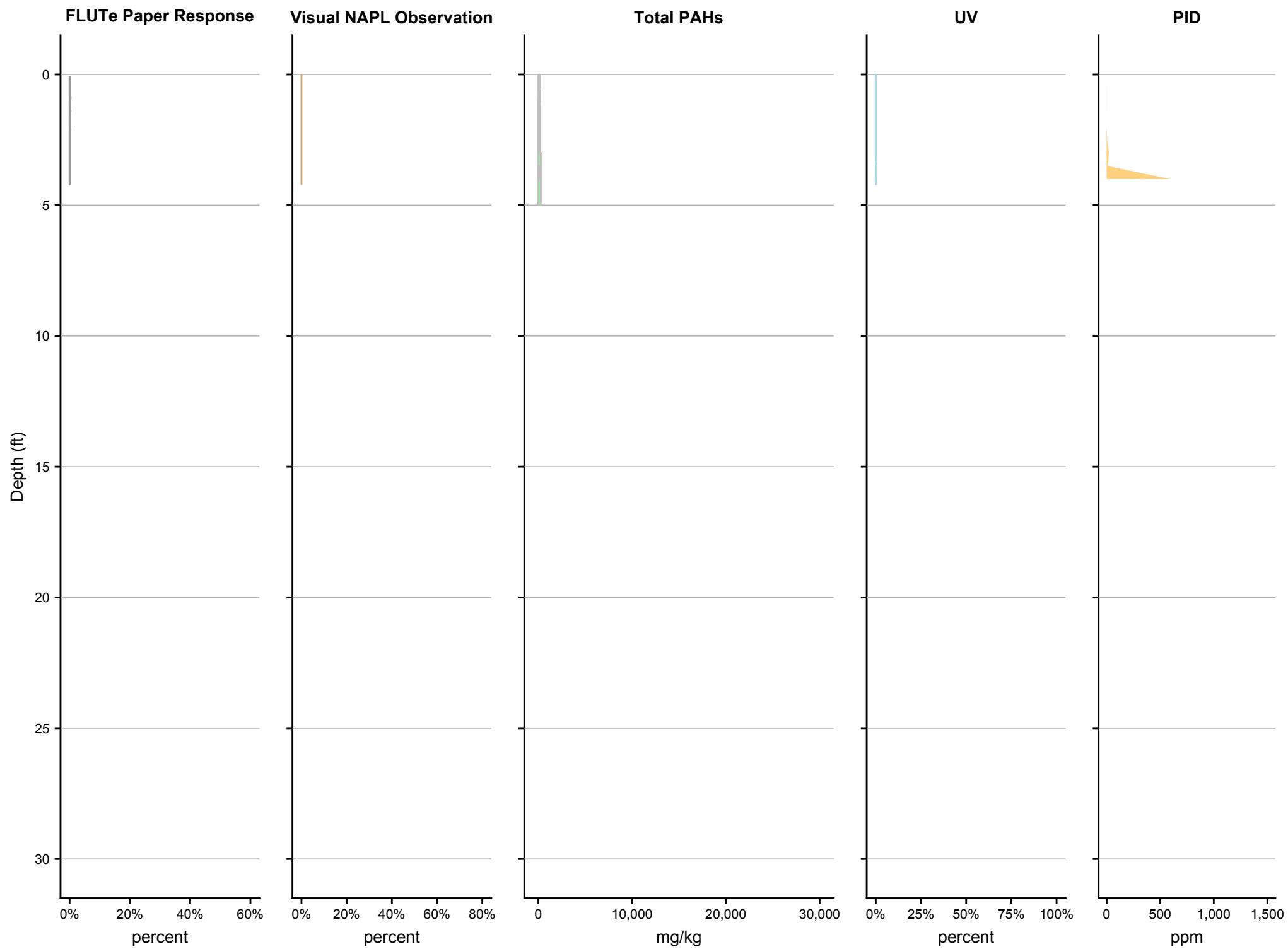
Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

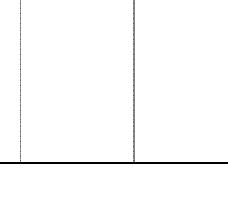
Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
TTA-06-D	DUP-05	1	3	FD
TTA-06-D	TTA-06-D-030036	2.5	3	N
TTA-06-D	TTA-06-D-036060	3	5	N
TTA-06-D	TTA-06-D-050056	4.17	4.67	N
TTA-06-D	TTA-06-D-060084	5	7	N
TTA-06-D	TTA-06-D-096120	8	10	N
TTA-06-D	TTA-06-D-110116	9.17	9.67	N
TTA-06-D	TTA-06-D-116140	9.67	11.67	N
TTA-06-D	TTA-06-D-134140	11.17	11.67	N
VC-05b	VC-05b-000006	0	0.5	N
VC-05b	VC-05b-006012	0.5	1	N
VC-05b	VC-05b-012036	1	3	N
VC-05b	VC-05b-017023	1.42	1.92	N
VC-05b	VC-05b-036060	3	5	N
VC-05b	VC-05b-048054	4	4.5	N
VC-05b	VC-05b-072096	6	8	N
VC-05b	VC-05b-080088	6.67	7.33	N
VC-05b	VC-05b-096120	8	10	N
VC-05b	VC-05b-156180	13	15	N
VC-05b	DUP-08	13	15	FD
VC-05b	VC-05b-164170	13.67	14.17	N
VC-05b	VC-05b-215239	17.92	19.92	N
VC-05b	VC-05b-224230	18.67	19.17	N
VC-05b	VC-05b-276300	23	25	N
VC-05b	VC-05b-290296	24.17	24.67	N
VC-05b-1	VC-05b-1-000006	0	0.5	N
VC-05b-1	VC-05b-1-006012	0.5	1	N
VC-05b-1	VC-05b-1-012036	1	3	N
VC-05b-1	VC-05b-1-030036	2.5	3	N
VC-05b-1	VC-05b-1-036060	3	5	N
VC-05b-1	VC-05b-1-051057	4.25	4.75	N
VC-05b-1	VC-05b-1-062086	5.17	7.17	N
VC-05b-1	VC-05b-1-096120	8	10	N
VC-05b-1	VC-05b-1-114120	9.5	10	N
VC-05b-1	VC-05b-1-126150	10.5	12.5	N
VC-05b-1	127133	10.58	11.08	N
VC-05b-1	VC-05b-1-216240	18	20	N
VC-05b-1	VC-05b-1-231237	19.25	19.75	N
VC-05b-1	VC-05b-1-246270	20.5	22.5	N

Sediment Sample Summary
Quanta Resources Superfund Site, Operable Unit 2; Edgewater, New Jersey

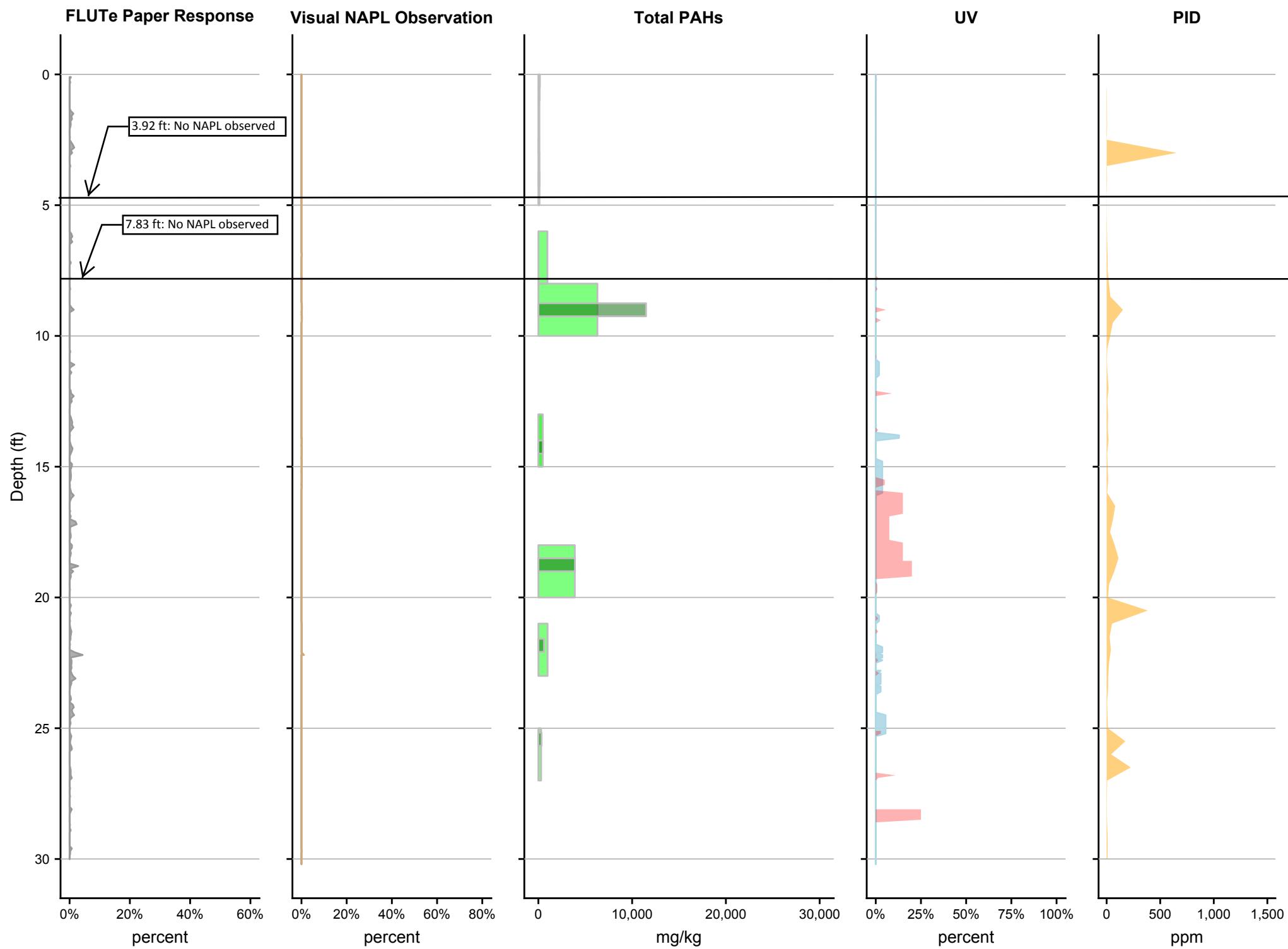
Location	Sample ID	Start Depth (ft)	End Depth (ft)	Sample Type
VC-05b-1	DUP-26	20.5	22.5	FD
VC-05b-1	VC-05b-1-252258	21	21.5	N
VC-05b-1	VC-05b-1-300324	25	27	N
VC-05b-1	VC-05b-1-306312	25.5	26	N
VC-05b-2	VC-05b-2-000006	0	0.5	N
VC-05b-2	VC-05b-2-006012	0.5	1	N
VC-05b-2	VC-05b-2-012036	1	3	N
VC-05b-2	VC-05b-2-030036	2.5	3	N
VC-05b-2	VC-05b-2-036060	3	5	N
VC-05b-2	VC-05b-2-052058	4.33	4.83	N
VC-05b-2	VC-05b-2-072096	6	8	N
VC-05b-2	VC-05b-2-083089	6.92	7.42	N
VC-05b-2	VC-05b-2-096120	8	10	N
VC-05b-2	VC-05b-2-156180	13	15	N
VC-05b-2	DUP-29	13	15	FD
VC-05b-2	VC-05b-2-161167	13.42	13.92	N
VC-05b-2	VC-05b-2-216240	18	20	N
VC-05b-2	VC-05b-2-234240	19.5	20	N
VC-05b-2	VC-05b-2-240246	20	20.5	N
VC-05b-2	VC-05b-2-240264	20	22	N
VC-05b-2	VC-05b-2-300306	25	25.5	N
VC-05b-2	VC-05b-2-300323	25	26.92	N

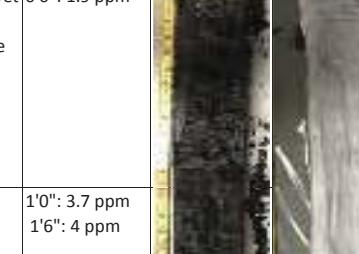
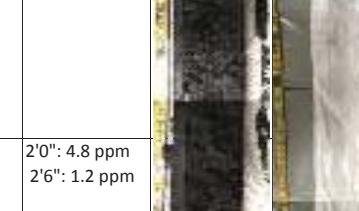
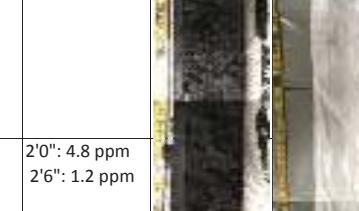
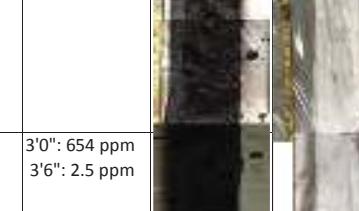
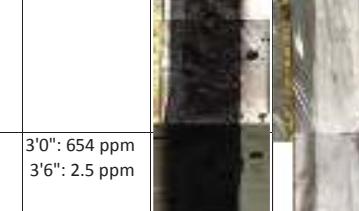
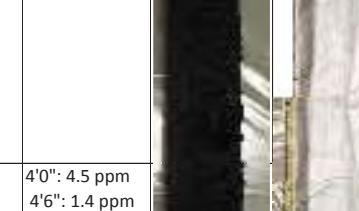
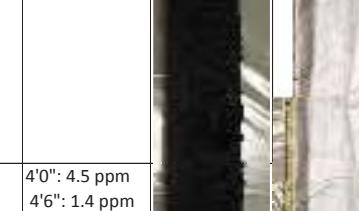
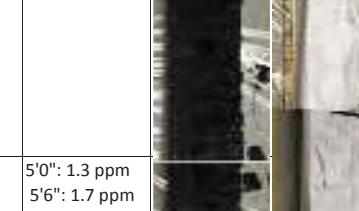
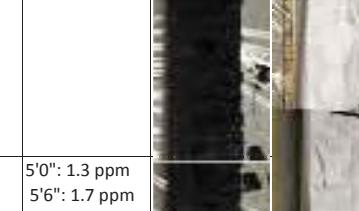
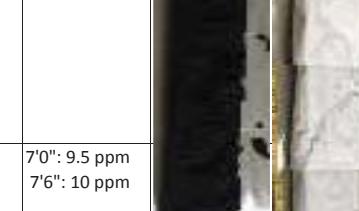
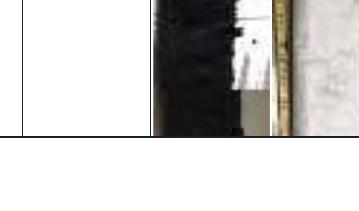
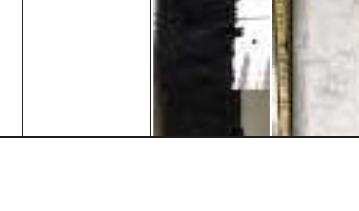
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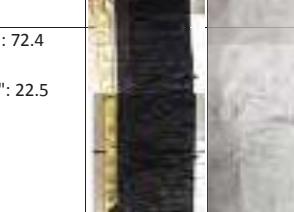
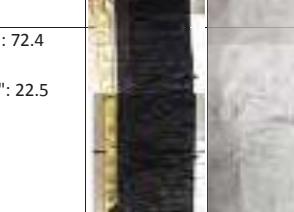
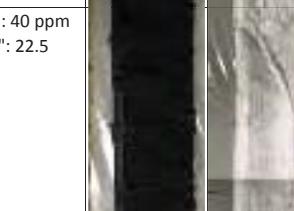
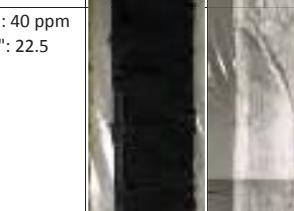
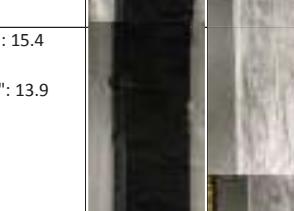
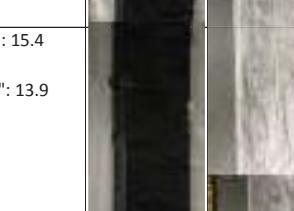
LOCATION: A-03b DATE: 2/5/2018 TIME: 11:11 LOGGED BY: D. Burge, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 4'2" NORTHING/EASTING: 718189.56, 633559.22 DEPTH TO TOP OF SEDIMENT: 3.3	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-4'2": No response	0'0"-0'3": None 0'3"-1'0": stained without sheen	0'0"-2'4": No response	0'0"-4'2": No response	0' 0"-0' 3": olive gray brown, soft, wet silt with little clay 0' 3"-1' 0": dark gray to very dark gray, soft, wet silt with little clay at 0' 9": 1" diameter clam shell	0'6": 0.9 ppm		
1		1'0"-4'2": stained without sheen			1' 0"-4' 0": dark gray to very dark gray, soft, moist silt w little clay at 1' 0": 1" diameter clam shell	1'0": 0.7 ppm 1'6": 0.5 ppm		
2			at 2'4": 3 - pinhead diameter responses 2'4"-3'1": No response		at 2' 1": 0.25" diameter shell with trace shell fragments	2'0": 0.4 ppm 2'6": 5.2 ppm		
3			at 3'1": 3 - pinhole diameter responses 3'1"-3'5": No response at 3'5": 1 - 0.125" diameter response 3'5"-3'6": No response 3'6"-3'8": pinhole diameter responses, 2 per inch 3'8"-3'10": No response at 3'10": 2 - pinhole diameter responses 3'10"-4'2": No response		at 3' 4.5": 0.25" layer of shell fragrments	3'0": 21.8 ppm 3'6": 10.6 ppm		
4					4' 0"-4' 2": dark gray brown, soft, moist silt with little clay	4'0": 594.4 ppm		

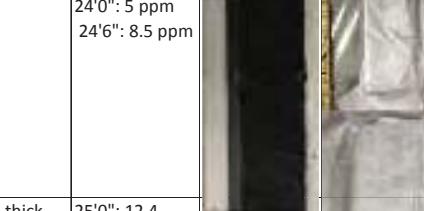
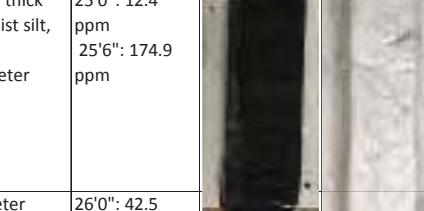
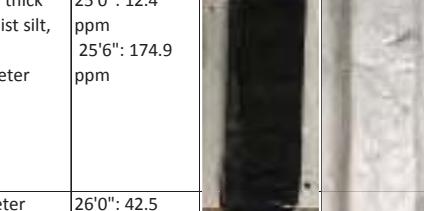
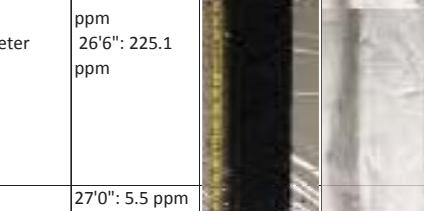
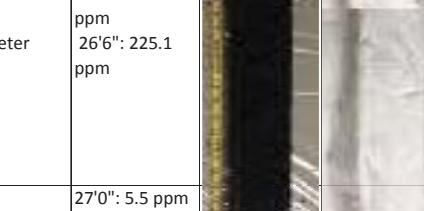
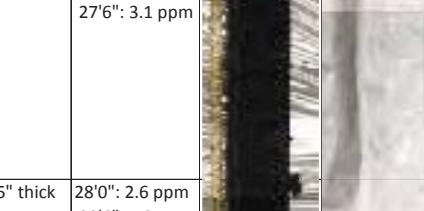
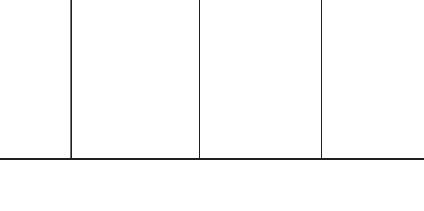
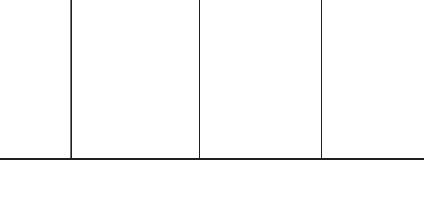
A-03C



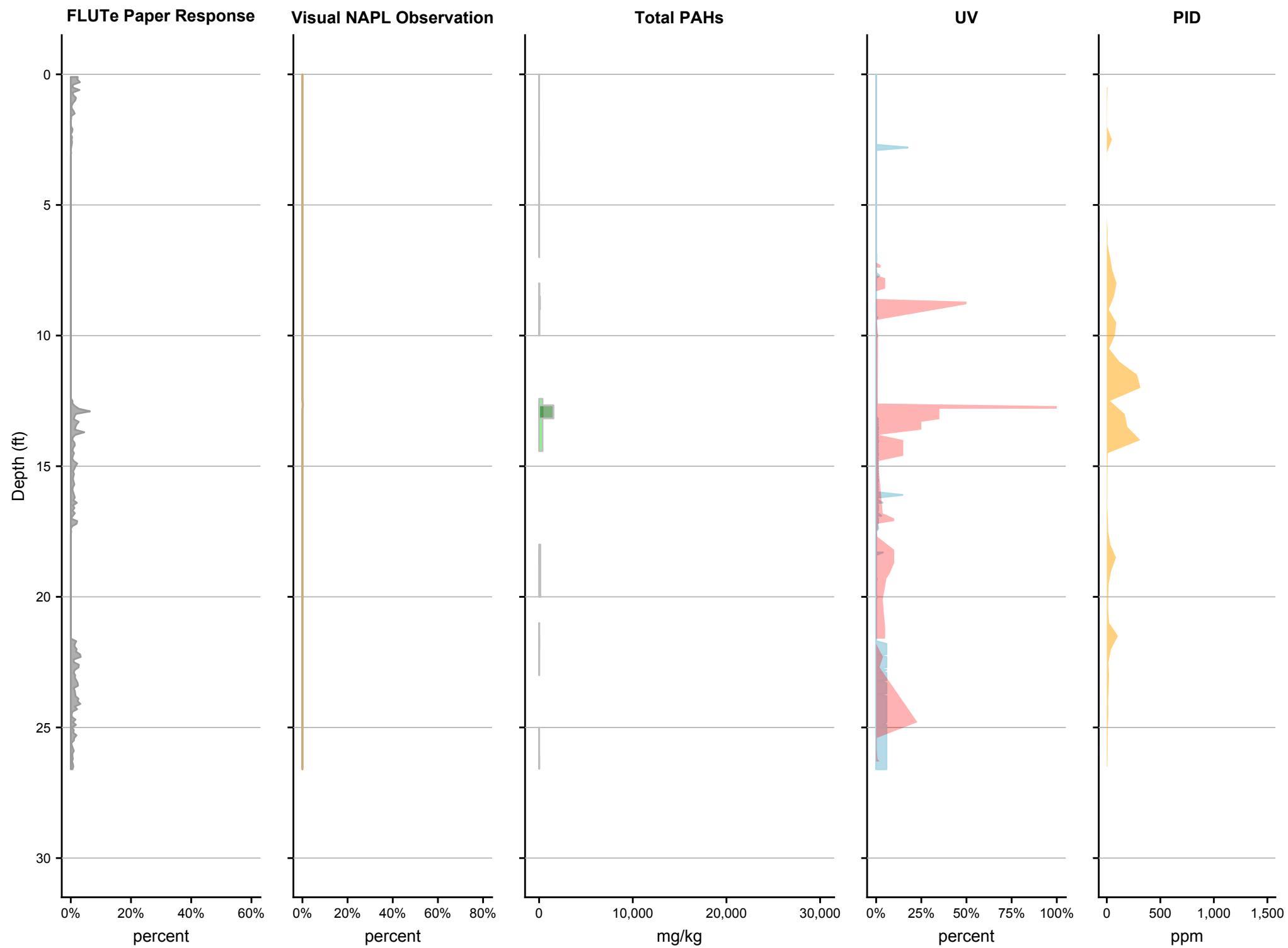
LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:			A-03c 2/23/2018 12:34 M. Conlon, D. Burge OSI	SAMPLING METHOD: CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'2" NORTHING/EASTING: 718179.48, 633573.35 DEPTH TO TOP OF SEDIMENT: 3.3	Comments:	RAMBOLL		
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-8'10": No response	0'0"-0'1": None 0'1"-2'11": stained without sheen	0'0"-0'7": pinhole diameter responses, 0-2 per inch at 0'2": trace fibrous material 0.25" long 0'7"-0'9": No response 0'9"-1'7": pinhole diameter responses, 2-5 per inch	0'0"-7'10": No response	0' 0"-0' 1": light brown to olive gray, very soft, wet silt, trace clay 0' 1"-2' 11": dark gray, soft, very moist silt, trace clay, trace seashells <0.25", trace gravel	0'6": 1.9 ppm		
1			1'7"-2'4": pinhole diameter responses, 0-2 per inch			1'0": 3.7 ppm 1'6": 4 ppm		
2		2'11"-3'1": stained with light sheen	2'4"-3'1": pinhole diameter responses, 2-5 per inch		2' 11"-3' 1": dark gray, soft, moist silt, trace clay	2'0": 4.8 ppm 2'6": 1.2 ppm		
3		3'1"-7'10": stained with sheen	3'1"-3'2": No response at 3'2": 1 - pinhole diameter response 3'2"-3'3": No response at 3'3": 1 - pinhole diameter response 3'3"-3'7": No response at 3'7": 4 - pinhole diameter responses 3'7"-3'11": No response at 3'11": 3 - pinhole diameter responses 3'11"-4'2": No response		3' 1"-5' 10": dark gray, medium soft, moist silt, trace clay	3'0": 654 ppm 3'6": 2.5 ppm		
4			4'2"-4'6": pinhole diameter responses, 2-3 per inch 4'6"-4'10": pinhole diameter responses, 1-2 per inch 4'10"-5'0": pinhole diameter responses, 2-5 per inch		at 4' 0": white shell fragment, 0.25" diameter	4'0": 4.5 ppm 4'6": 1.4 ppm		
5			5'0"-5'3": pinhole diameter responses, 2 per inch 5'3"-5'7": No response 5'7"-6'0": pinhole diameter responses, 2-5 per inch		at 5' 8": twig fragment, 2" long 5' 10"-6' 0": 2 pieces of subangular gravel, 0.5" diameter and 0.25" diameter 5' 10"-6' 0": dark gray, loose, moist sandy silt	5'0": 1.3 ppm 5'6": 1.7 ppm		
6		at 6'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	6'0"-6'2": No response 6'2"-6'4": pinhole diameter responses, 2-5 per inch 6'4"-6'7": pinhole diameter responses, 2 per inch 6'7"-6'8": pinhole diameter responses, 10 per inch 6'8"-8'4": pinhole diameter responses, 2 per inch		6' 0"-11' 0": dark gray, medium soft, moist at 6' 11": non-continuous fine sand lens, 0.125" thick	6'0": 4.1 ppm 6'6": 6.1 ppm		
7		at 7'9": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 7'9"-7'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch 7'10"-11'0": stained with heavy sheen		at 7'10": 5 - 0.125" diameter responses 7'10"-8'2": No response	7' 6"-7' 9": trace white shell fragments <0.125" diameter at 7' 9": fibrous material <0.125" diameter at 7' 9": 2 gravel pieces <0.25" diameter	7'0": 9.5 ppm 7'6": 10 ppm		

LOCATION: A-03c DATE: 2/23/2018 TIME: 12:34 LOGGED BY: M. Conlon, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'2" NORTHING/EASTING: 718179.48, 633573.35 DEPTH TO TOP OF SEDIMENT: 3.3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
8	8'10"-9'0": 5% coverage	8'9"-9'5": stained with heavy sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch	8'4"-8'9": pinhole diameter responses, 2-5 per inch 8'9"-9'6": pinhole diameter responses, 2 per inch	at 8'2": 3 - 0.125" diameter responses 8'2"-9'0": No response		8'0": 22.1 ppm 8'6": 35.4 ppm		
9	9'0"-9'5": No response at 9'5": 4 pinhole diameter responses 9'5"-18'7": No response		9'6"-10'0": pinhole diameter responses, 5-10 per inch	at 9'0": 1 - 0.5" diameter response (piece of plastic) 9'0"-9'5": No response at 9'5": 2 - 0.25" diameter responses 9'5"-10'9": No response	at 9' 0": clear plastic at 9' 4": wood fragments at 9' 11": more plastic and wood fragments (twigs <3")	9'0": 152.8 ppm 9'6": 57.3 ppm		
10			10'0"-11'0": pinhole diameter responses, 2-5 per inch	at 10'9": 1 - 0.125" diameter response 10'9"-12'2": No response		10'0": 33.4 ppm 10'6": 6.3 ppm		
11		11'0"-15'10": stained with sheen 11'0"-11'11.5": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 11'11.5"-13'8": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	11'0"-11'6": pinhole-0.125" diameter responses, 5-10 per inch 11'6"-11'9": pinhole diameter responses, 15-20 per inch 11'9"-14'10": pinhole diameter responses, 5-10 per inch		11' 0"-16' 0": very dark gray, medium soft, moist silt, trace clay	11'0": 2.7 ppm 11'6": 9.5 ppm		
12				12'2"-13'7": No response at 12'2": 1 - 2.5" long yellow white partial band (too thin to measure width)		12'0": 17.7 ppm 12'6": 7 ppm		
13		13'8"-13'11": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 13'11"-15'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch	13'6"-14'10": <0.25" long trace fibrous material 13'10"-13'11": 1 - 0.75" diameter iridescent response 13'10"-13'11": 1 - 0.25" diameter iridescent response	at 13'7": 1 - 0.25" diameter response 13'7"-15'6": No response		13'0": 13.9 ppm 13'6": 10.5 ppm		
14			14'10"-16'0": pinhole-0.125" diameter responses, 15-20 per inch 14'10"-16'0": <0.25" long trace fibrous material			14'0": 17.5 ppm 14'6": 5.5 ppm		
15		15'10"-16'0": stained with heavy sheen		15'6"-15'8": 5% 15'8"-16'0": No response		15'0": 10 ppm 15'6": 14.6 ppm		

LOCATION: A-03c DATE: 2/23/2018 TIME: 12:34 LOGGED BY: M. Conlon, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'2" NORTHING/EASTING: 718179.48, 633573.35 DEPTH TO TOP OF SEDIMENT: 3.3	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper	
16		16'0"-16'3": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch 16'3"-16'9": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch 16'9"-18'0": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	16'0"-17'0": pinhole diameter responses, 5 per inch	16'0"-16'9": 10-20% 16'9"-17'11": 5-10%	16' 0"-16' 5": dark gray, medium soft, moist silt, trace clay at 16' 1": piece of plastic 16' 5"-21' 0": dark olive gray, medium soft, moist silt, trace clay	16'0": 6 ppm 16'6": 80.2 ppm			
17			17'0"-17'9": pinhole diameter responses, 5-10 per inch at 17'3": 1 - 0.125" thick layer (leaves & piece of aluminum foil?) 17'9"-18'8": pinhole diameter responses, 5 per inch	at 17'10": 1 - 0.25" diameter response 17'11"-18'7": 10-20%		17'0": 60.4 ppm 17'6": 32.4 ppm			
18	18'7"-18'11": 4 - 0.125" responses 18'7"-18'11": 10 pinhole diameter responses 18'11"-30'2": No response	18'0"-18'11": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 18'11"-19'11": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	18'8"-20'8": pinhole diameter responses, 5-10 per inch	18'7"-19'2": 20%	at 18' 2": fibrous material	18'0": 75.9 ppm 18'6": 110.7 ppm			
19		19'11"-21'0": stained with sheen, pinhole diameter NAPL droplets, 2 per inch		19'2"-19'6": No response 19'6"-19'9": pinhole-0.125" diameter responses, 5 per inch 19'9"-20'10": No response			19'0": 72.4 ppm 19'6": 22.5 ppm		
20			20'8"-20'11": pinhole-0.125" diameter responses, 5-10 per inch 20'11"-21'0": 2 - pinhole diameter responses	at 20'10": 1 - 0.25" diameter response 20'10"-21'4": No response	at 20' 2": organic material (twigs) at 20' 8": piece of white plastic	20'0": 12.9 ppm 20'6": 385 ppm			
21		21'0"-22'1": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch	21'0"-25'2": <0.5" long trace fibrous material 21'0"-21'11": pinhole diameter responses, 10 per inch 21'11"-22'5": pinhole-0.125" diameter responses, 15-20 per inch	at 21'4": 1 - 0.25" diameter response 21'4"-22'2": No response	21' 0"-22' 1": dark gray, medium soft to firm, moist silt, trace clay	21'0": 50.6 ppm 21'6": 28.3 ppm			
22		22'1"-23'2": stained with sheen, pinhole diameter diameter NAPL droplets, 0-2 per inch at 22'3": stained with sheen, 1 - 2.5" x 0.125" NAPL layer	at 22'5": 1 - 0.5" x 0.25" response 22'5"-22'10": pinhole diameter responses, 5-10 per inch 22'10"-23'7": pinhole-0.125" diameter responses, 10-15 per inch	at 22'2": 1 - 0.125" diameter response 22'2"-22'5": No response at 22'5": 1-0.25" diameter response 22'5"-22'11": No response at 22'11": 1 - 0.5" x 0.125" response 22'11"-25'1.5": No response	22' 1"-23' 2": olive gray, medium soft to firm, moist silt, trace clay	22'0": 40 ppm 22'6": 22.5 ppm			
23		23'2"-24'7": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	23'7"-24'6": pinhole diameter responses, 15-20 per inch		23' 2"-25' 2": dark gray, medium soft to firm, moist silt, trace clay	23'0": 15.4 ppm 23'6": 13.9 ppm			

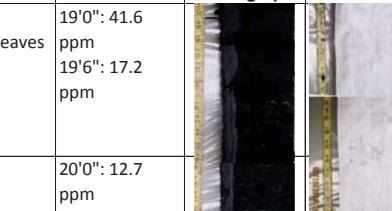
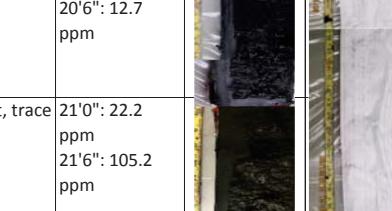
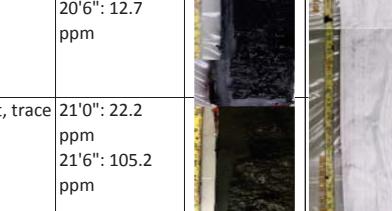
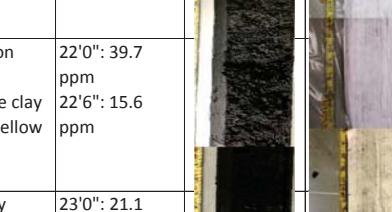
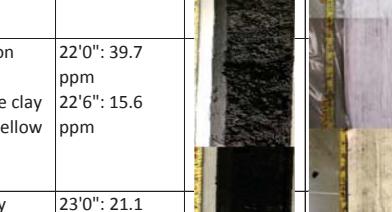
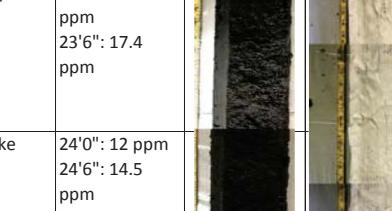
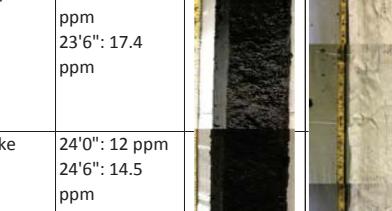
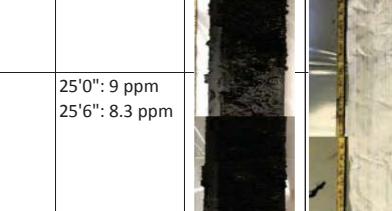
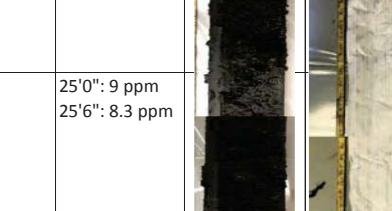
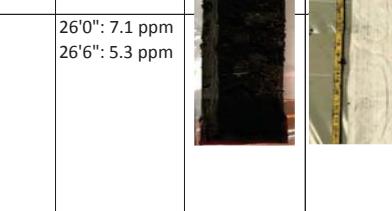
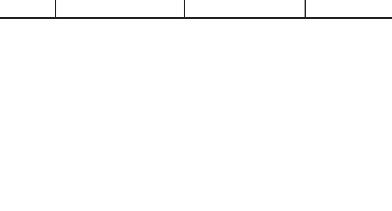
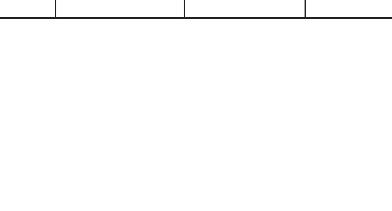
LOCATION: A-03c DATE: 2/23/2018 TIME: 12:34 LOGGED BY: M. Conlon, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'2" NORTHING/EASTING: 718179.48, 633573.35 DEPTH TO TOP OF SEDIMENT: 3.3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
24		24'7"-25'2": stained with sheen	24'6"-25'2": pinhole-0.125" diameter responses, 20-30 per inch			24'0": 5 ppm 24'6": 8.5 ppm		
25		25'2"-30'2": stained with light sheen	25'2"-25'5": pinhole diameter responses, 5 per inch 25'5"-25'9": pinhole diameter responses, 0-2 per inch 25'9"-28'9": pinhole diameter responses, 2-5 per inch	25'1.5"-25'3": No response at 25'1.5": 2 - 0.25" diameter responses at 25'3": 2 - 0.25" diameter responses 25'3"-26'9": No response	at 25' 1": 0.5" yellow tan, less than 0.125" thick 25' 2"-30' 2": dark gray, medium soft, moist silt, trace clay at 25' 4": yellow/orange lens, 0.25" diameter	25'0": 12.4 ppm 25'6": 174.9 ppm		
26				at 26'9": 1 - 1.5" x 0.25" response 26'9"-26'11": No response at 26'11": 1 - 0.25" diameter response 26'11"-28'1": No response	at 26' 4": yellow/orange lens, 0.25" diameter at 26' 6": fibrous material at 26' 11": yellow/orange lens, 0.5" diameter	26'0": 42.5 ppm 26'6": 225.1 ppm		
27						27'0": 5.5 ppm 27'6": 3.1 ppm		
28			28'9"-29'8": pinhole diameter responses, 10 per inch	28'1"-28'2": 2 - 0.125" thick layers 28'2"-28'4": No response 28'4"-28'6": 4 - 0.125" thick layers 28'6"-30'2": No response	28' 4"-28' 6": 3 yellow/orange layers 0.125" thick	28'0": 2.6 ppm 28'6": 4.2 ppm		
29		at 29'8": stained with light sheen, 2 - 0.125" diameter NAPL droplets	29'8"-30'2": pinhole diameter responses, 2-5 per inch			29'0": 8.4 ppm 29'6": 10.1 ppm		
30						30'0": 8.8 ppm		

A-03C-1

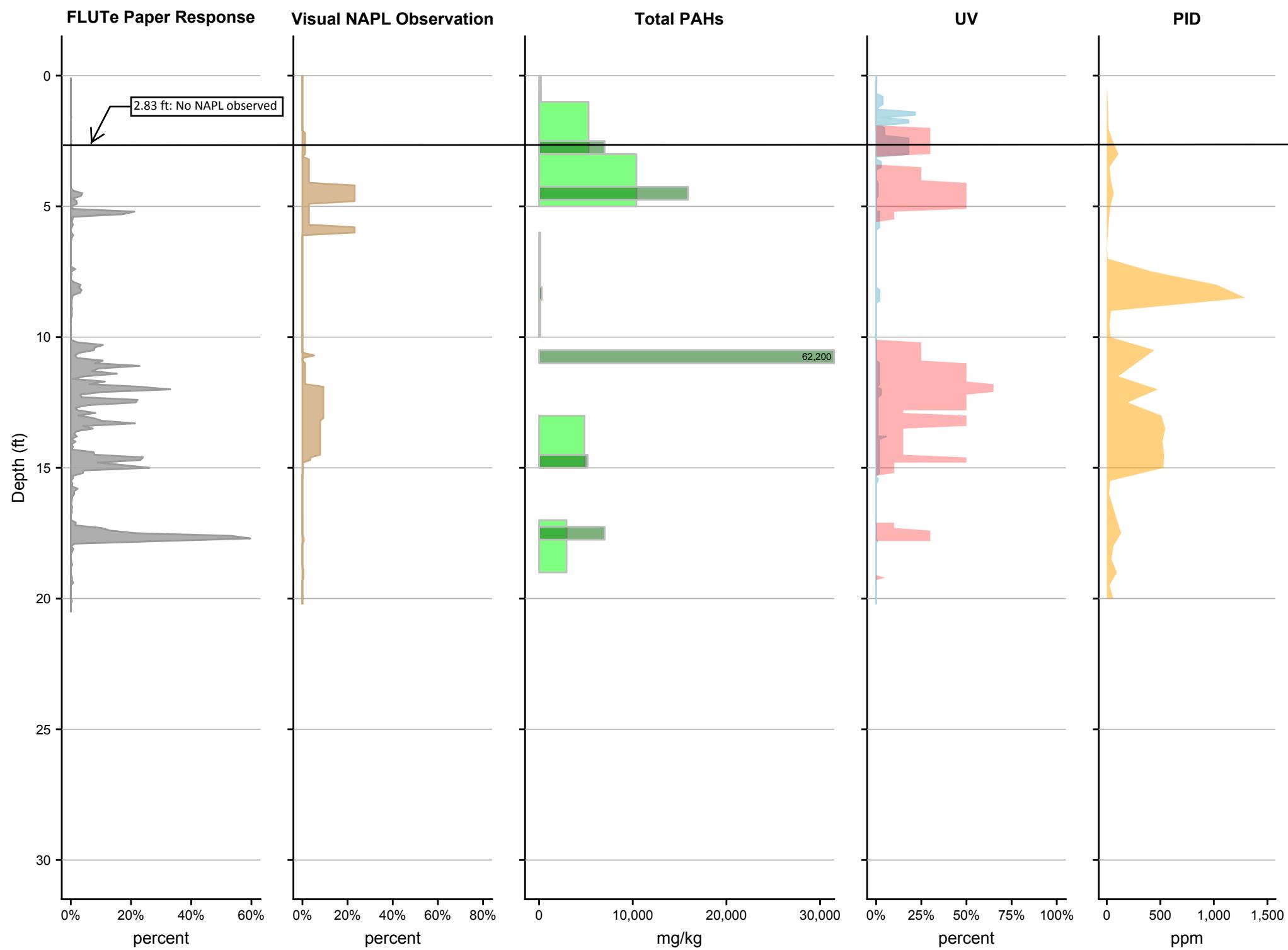


LOCATION: A-03c-1 DATE: 3/9/2018 TIME: 12:31:00 PM LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718148.95, 633561.92 DEPTH TO TOP OF SEDIMENT: 3.2	Comments:	Ramboll			
Depth	FLUTE Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTE Paper
0	0'0"-8'8": No response	0'0"-0'1": None 0'1"-2'9": stained without sheen 2'9"-3'5": stained with sheen	0'0"-0'4": No response 0'4"-3'5": pinhole responses, 0-5 per inch	0'0"-7'4": No response	0' 0"-0' 1": light olive gray, very loose, wet silt, trace fine sand 0' 1"-1' 1": dark olive gray, very loose, wet silt, trace fine to coarse sand at 0' 4": 1" long 1/2 shell at 0' 8": 1" long 1/2 shell	0'6": 7.8 ppm		
1					1' 1"-2' 3": dark olive gray, soft, wet silt, trace fine to coarse sand	1'0": 3.8 ppm 1'6": 1.6 ppm		
2		2'9"-3'5": stained with sheen	2'9"-2'10": 15-20% coverage		2' 3"-2' 11": dark olive gray, soft, wet silt, trace fine sand 2' 11"-3' 0": dark olive gray, soft, wet silt, coarse sand	2'0": 1.8 ppm 2'6": 48 ppm		
3		3'5"-7'0": stained without sheen			3' 0"-3' 5": dark olive gray, soft, wet silt, trace fine sand at 3' 3": thin piece of bark (1.5"x 1") 3' 5"-3' 7": dark gray, soft, wet silt, trace clay 3' 7"-4' 0": dark gray, soft, wet silt, trace clay, trace fine sand	3'0": 1.2 ppm 3'6": 0 ppm		
4			at 4'3": 1 pinhole response		4' 0"-4' 11": dark gray, soft, wet silt, trace clay 4' 11"-5' 2": dark gray, soft, wet trace fine to medium sand, one 1/8" diameter pebble	4'0": 0 ppm 4'6": 0 ppm		
5			at 5'6": 1 pinhole response		5' 2"-5' 4": dark gray, soft, wet sandy silt, fine to coarse sand 5' 4"-7' 0": dark gray, soft, wet silt, trace clay at 5' 8": one 1/8" diameter white shell fragment, 2"- long fibrous material (possible geotextile) at 5' 11": one 1/8" diameter whit	5'0": 0.6 ppm 5'6": 0.3 ppm		
6			at 6'3": 2 pinhole responses at 6'6": 2 pinhole responses at 6'10": 1 pinhole response 6'11"-7'1": pinhole responses, 5-10 per inch 6'11"-7'1": 1 - 0.13" diameter response		at 6' 7": Four 1/4" diameter white shells	6'0": 7.6 ppm 6'6": 7 ppm		
7		7'0"-7'2": stained with light sheen 7'2"-7'4": stained without sheen 7'4"-7'5": stained with light sheen 7'6"-7'11": stained with sheen 7'11"-8'1": stained with sheen, pinhole diameter NAPL droplets, 20-30 per inch	7'1"-7'5": pinhole responses, 0-2 per inch 7'5"-8'3": pinhole responses, 2-5 per inch at 7'8": 1 - 0.13" x 0.5" response	7'4"-7'5": <5% coverage 7'5"-7'6": No response at 7'6": 1 - 0.125" diameter response at 7'8": 1 - 0.125" diameter response 7'10"-8'2": 5% coverage	7' 0"-7' 2": dark gray, soft, wet silt, trace fine to medium sand, trace twig fragments, trace 1/8" diameter pebbles 7' 2"-7' 5": dark gray, soft, wet silt, trace clay 7' 5"-7' 6": dark gray, soft, very moist silt, trace clay, trace fine sand 7' 6"-7' 9": dark gray, soft, very moist silt, fine to medium sand, some intermingled fibrous plastic material 7' 9"-7' 11": dark gray, soft, very moist silt, trace clay 7' 11"-8' 1": dark gray, loose, wet silt, medium to very coarse sand, trace small gravel	7'0": 30.6 ppm 7'6": 52.1 ppm		
8	at 8'8": 2 pinhole responses 8'8"-12'5": No response	8'1"-8'7": stained with sheen 8'7"-8'10": stained with sheen, NAPL droplets, 30-40 per inch 8'10"-10'11": stained with sheen	8'3"-12'0": pinhole responses, 0-2 per inch	8'2"-8'8": No response 8'8"-8'10": 50% coverage	8' 1"-8' 7": dark gray, soft, very moist to wet silt, trace clay 8' 7"-8' 10": dark gray, soft, wet sandy silt, fine to medium sand, trace coarse sand, stained shells and gravel up to 1/2" diameter (trace) 8' 10"-9' 4": dark gray, soft, very moist to wet, sandy silt, fine to medium sand, trace very coarse sand and small gravel up to 0.5" diameter, trace white shell fragments	8'0": 91.5 ppm 8'6": 66.7 ppm		

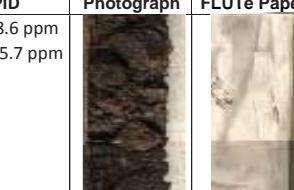
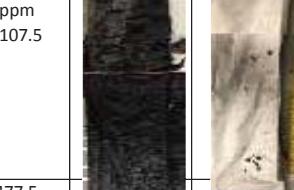
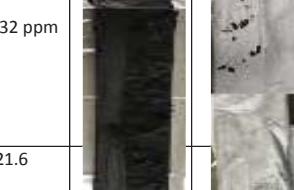
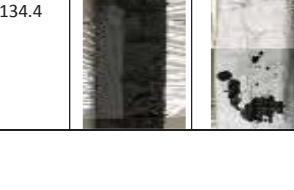
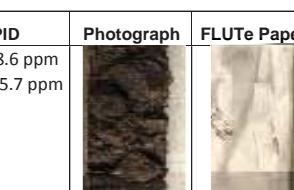
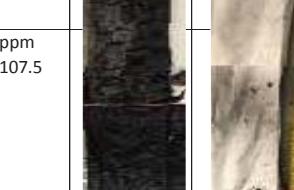
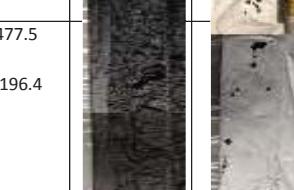
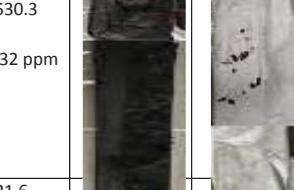
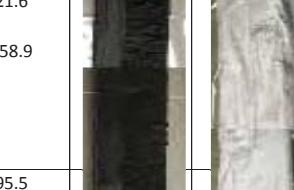
LOCATION: A-03c-1 DATE: 3/9/2018 TIME: 12:31:00 PM LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718148.95, 633561.92 DEPTH TO TOP OF SEDIMENT: 3.2	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
9			at 9'4": 2 - 0.13" diameter responses	at 9'5": 1 - 0.125" diameter response	9' 4"-10' 0": olive gray, soft, very moist silt, trace clay	9'0": 18.4 ppm 9'6": 88.1 ppm		
10		10'11"-11'0": stained with sheen, 10 - pinhole diameter NAPL droplets	at 10'0": 2 - 0.13" diameter responses	at 10'0": 3 - 0.125" diameter responses	10' 0"-11' 4": olive gray, soft, wet silt, trace clay 10' 0"-10' 0.5": a layer of fibrous material at 10' 0.5": trace of white shell fragments up to 1/8" diameter at 10' 11": two 2"- long twig fragments	10'0": 74.6 ppm 10'6": 21.7 ppm		
11		11'0"-12'5": stained with sheen			at 11' 4": 1/4" pebble 11' 4"-12' 2": olive gray, soft, very moist silt, trace clay	11'0": 118.1 ppm 11'6": 283.3 ppm		
12	12'5"-12'9": No response 12'9"-12'11": 2 pinhole-0.125" diameter responses 12'11"-13'1": No response	12'5"-12'7": stained with sheen 12'7"-12'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15 per inch 12'8"-12'11": stained with sheen, oozing NAPL 12'11"-14'6": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	12'0"-12'5": pinhole responses, 2-5 per inch 12'5"-12'8": pinhole responses, 25-30 per inch 12'8"-12'10": No response 12'10"-17'5": pinhole responses, 25-30 per inch	12'5"-12'8": pinhole - 0.125" diameter responses, 0-5 per inch 12'8"-12'10": 100% coverage 12'10"-13'2": 30-40% coverage	12' 2"-12' 4": dark gray, soft, wet silt, some sand, trace leave fragment (2"-long by 2"-wide), trace small gravel up to 3/4" diameter 12' 4"-12' 5": olive gray, soft, very moist silt, trace clay 12' 5"-12' 8": dark gray, silt, trace clay, trace fine sand 12' 8"-12' 10": dark gray, silt, coarse sand, up to 0.25" rock fragments 12' 10"-13' 5": dark gray, silt, trace clay, fine sand 12' 5"-14' 6": some organic matter	12'0": 314.7 ppm 12'6": 29.4 ppm		
13	at 13'1": 1 pinhole response 13'1"-14'1": No response		13'3"-17'5": 0.5"-long fibrous material, 0-5 per inch	13'2"-13'7": 25% coverage at 13'9": 1 - 0.25" diameter response	13' 5"-15' 2": dark gray, silt, trace clay at 13' 11": small piece of metallic foil	13'0": 166.8 ppm 13'6": 192.8 ppm		
14	at 14'11": 1 pinhole response 14'11"-16'4": No response	14'6"-15'2": stained with sheen, NAPL droplets, 0-5 per inch	at 14'6": 3 - pinhole-0.07" diameter responses	14'0"-14'7": 15% coverage at 14'9": 1 - 0.25" diameter response	at 14' 3": small piece of metallic foil at 14' 5": 1/4"-wide stick 14' 6"-15' 2": less organic matter	14'0": 313.5 ppm 14'6": 9.6 ppm		
15		15'2"-16'9": stained with sheen		at 15'1": 1 - 0.25" diameter response	15' 2"-16' 9": organic matter gone but hairlike material present 15' 2"-17' 3": dark olive gray, silt, trace clay	15'0": 6.5 ppm 15'6": 5.6 ppm		
16	at 16'4": 1 pinhole response 16'4"-17'1": No response	16'9"-17'5": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	at 16'1": 1 - 0.5" x 1" response at 16'5": 1 - 0.25" x 0.5" response at 16'11": 2 - 0.25" diameter responses	at 16'9": 1 - 0.25" x 0.5" response	at 16' 7": 1" rock 16' 9"-17' 5": organic matter present	16'0": 6 ppm 16'6": 4.5 ppm		
17	17'1"-17'5": No response at 17'1": 1 pinhole response 17'5"-18'4": No response	17'5"-18'3": stained with sheen	17'5"-19'5": pinhole responses, 2-5 per inch	17'0"-17'1": 10% coverage 17'1"-17'5": pinhole - 0.125" diameter response, 0-5 per inch at 17'6": 1 - 0.125" diameter response at 17'8": 2 - 0.125" diameter responses	17' 3"-17' 5": dark gray, silt, trace clay 17' 5"-21' 7": dark gray, soft, very moist silt, trace clay at 17' 7": 2"-long twig, fibrous material (trace)	17'0": 10.4 ppm 17'6": 12.9 ppm		
18	at 18'4": 1 pinhole response 18'4"-19'3": No response	18'3"-18'5": stained with sheen, pinhole diameter NAPL droplets, 10 per inch 18'5"-18'10": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 18'10"-20'1": stained with sheen	at 18'4": 1 - 0.13" x 1" response	18'2"-18'8": 10% coverage	at 18' 5": 3"-long wooden twig, 3" by 2" leaf fragment	18'0": 33.8 ppm 18'6": 86.1 ppm		

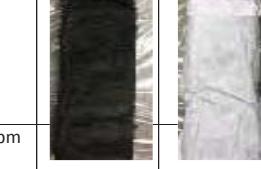
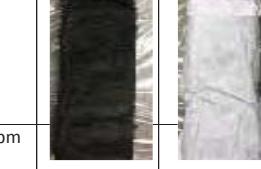
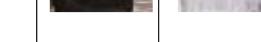
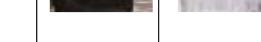
Drill Log Data			SAMPLING METHOD:	Vibracore	Comments:	Ramboll		
Depth	FLUTE Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTE Paper
19	at 19'3": 2 pinhole responses 19'3"-19'4": No response at 19'4": 1 pinhole response 19'4"-21'4": No response		at 19'4": 1 - 0.13" diameter response 19'5"-20'0": pinhole responses, 0-2 per inch	at 19'1": 1 - 0.13" x 2" response at 19'4": 1 - 0.5" diameter response, 2 - 0.125" diameter responses	at 19' 5": one 1/8"-thick layer of leaves at 19' 9": one 1/8"-thick layer of twigs and leaves and organic fibrous material	19'0": 41.6 ppm 19'6": 17.2 ppm		
20		20'1"-20'5": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch 20'5"-21'1": stained with sheen	at 20'0": 1 - 0.13" diameter response 20'0"-20'6": pinhole responses, 5-10 per inch 20'6"-21'0": pinhole responses, 10-15 per inch	at 20'1": 1 - 0.5" by 0.25 response		20'0": 12.7 ppm 20'6": 12.7 ppm		
21	at 21'4": 3 pinhole responses 21'4"-21'6": No response 21'6"-21'7": No response at 21'6": 2 pinhole responses 21'7"-22'0": No response	21'1"-21'4": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch 21'4"-21'7": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 21'7"-22'0": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch	21'0"-21'7": pinhole responses, 2-5 per inch 21'7"-26'7": pinhole responses, 10-15 per inch 21'9"-26'7": pinhole 0.50" responses, 0-2 per inch	21'2"-21'7": 5% coverage 21'7"-21'10": pinhole responses, 0-5 per inch	21' 7"-22' 5": dark olive gray, firm, moist silt, trace clay	21'0": 22.2 ppm 21'6": 105.2 ppm		
22	22'0"-26'7": No response at 22'0": 3 pinhole responses	22'0"-22'6": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch at 22'0": stained with heavy sheen 22'6"-23'3": stained with sheen	at 22'11": 1 - 0.13" x 0.5" response at 22'11": 3 - 0.13" diameter responses	at 22'4": 1 - 1" x 0.13" response at 22'8": 1 - 0.5" x 0.13" response	at 22' 5": hairlike fibers at high concentration 22' 5"-26' 7": trace hairlike fibers 22' 5"-23' 4": dark gray, soft, moist silt, trace clay at 22' 11": metallic foil, silver on one side, yellow on the other	22'0": 39.7 ppm 22'6": 15.6 ppm		
23		23'3"-23'9": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch 23'9"-26'1": stained with sheen	at 23'4": 1 - 0.25" diameter response		23' 4"-24' 11": dark olive gray, silt, trace clay	23'0": 21.1 ppm 23'6": 17.4 ppm		
24			at 24'11": 1 - 0.25" x 0.5" response	at 24'10": 3 - 0.125" diameter responses at 24'10": 1 - 1" diameter response	at 24' 10": 1/4" by 4" textile material, hairlike fibers at 24' 10": some fibrous hairlike material 24' 11"-26' 7": olive gray, silt, trace clay	24'0": 12 ppm 24'6": 14.5 ppm		
25			at 25'1": 1 - 0.25" diameter response	at 25'5": 1 - 0.125" diameter response at 25'8": 1 - 0.125" diameter response at 25'9": 1 - 0.125" diameter response	at 25' 6": decomposing leaf matter	25'0": 9 ppm 25'6": 8.3 ppm		
26		26'1"-26'7": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch		at 26'2": 2 - 0.125" diameter responses at 26'4": 1 - 0.125" diameter response at 26'4": 1 - 0.5" x 0.13" response at 26'4": 1 - 0.25" x 0.13" response	at 26' 6": metallic foil	26'0": 7.1 ppm 26'6": 5.3 ppm		

A-08B

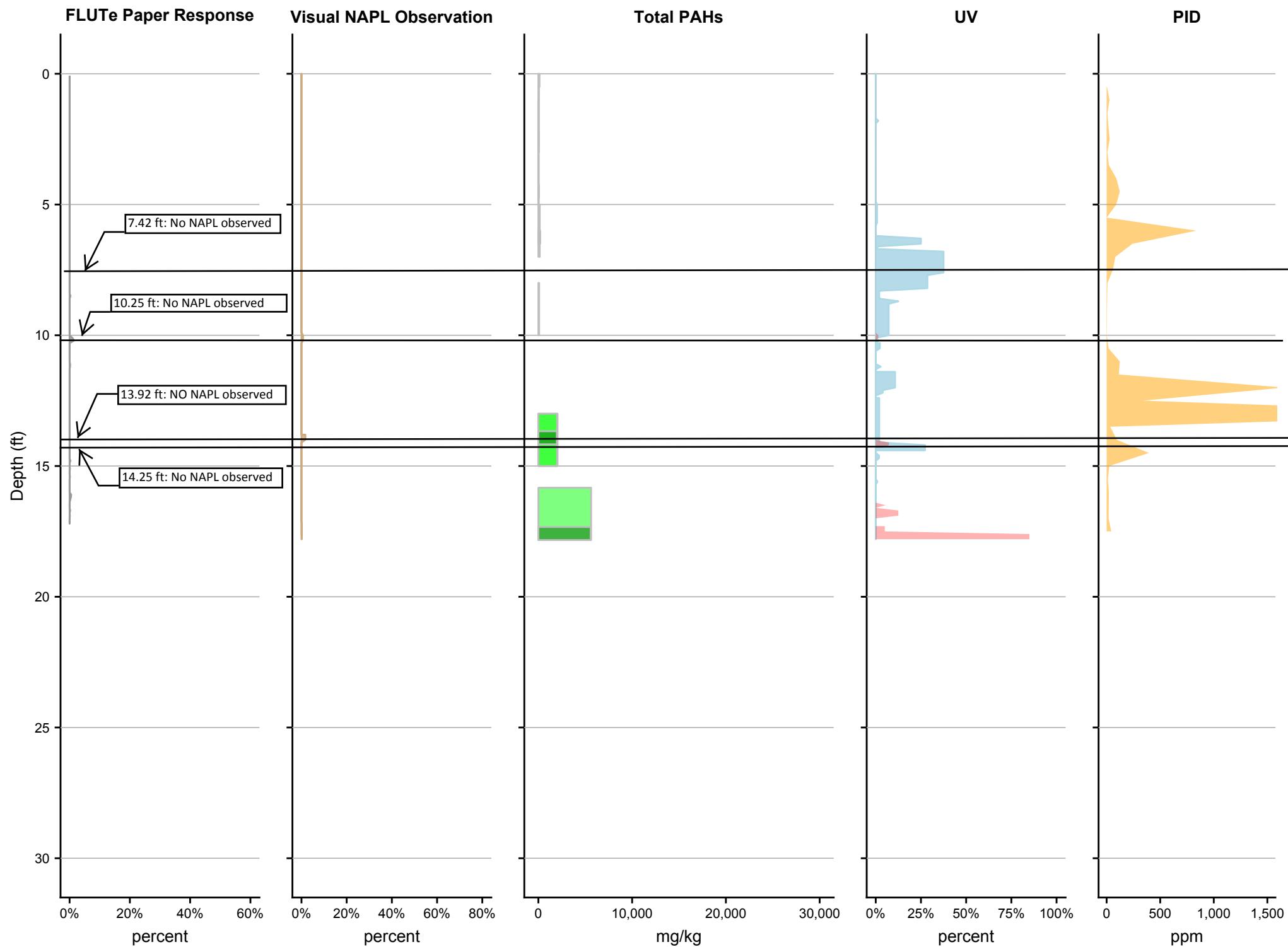


LOCATION: A-08b DATE: 2/6/2018 TIME: 11:34 LOGGED BY: H. Cannarella, D. Burge, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 20' NORTHING/EASTING: 718662.02, 633824.61 DEPTH TO TOP OF SEDIMENT: 2.3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-3'3": No response	0'0"-0'2": None 0'2.5"-1'3.5": stained without sheen	0'0"-0'2": 2 - pinhole-0.125" diameter responses 0'2"-0'9": 5 - pinhole-0.125" diameter responses at 0'9": 1 - 1" x 0.125" streak 0'9"-0'10": 5 - pinhole-0.125" diameter responses 0'10"-1'1": pinhole-0.125" diameter responses, 15-20 per inch	0'0"-1'11.5": No response	0' 0"-0' 0.25": dark gray with brown, 0' 0.25"-0' 7.5": dark gray, very soft, silt at 0' 3.5": shell fragments 0' 7.5"-1' 3.5": olive gray, medium soft, silt	0'6": 1.9 ppm		
1			1'1"-1'4.5": pinhole-0.125" diameter responses, 5 per inch 1'4.5"-1'5.5": 30 - pinhole-0.25" diameter responses 1'5.5"-1'7.5": pinhole-0.125" diameter responses, 10 per inch at 1'7.5": 1 - 0.25" x 0.25" streak 1'7.5"-1'8.5": 10 - pinhole-0.125" diameter responses 1'8.5"-1'10": pinhole-0.25" diameter responses, 25 per inch 1'10"-2'0": pinhole-0.125" diameter responses, 10 per inch	1'11.5"-3'0": 30% (streaks)	1' 3.5"-2' 2": dark olive gray, medium soft, silt	1'0": 8.8 ppm 1'6": 13.1 ppm		
2		2'2"-3'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10 per inch	2'0"-2'5": pinhole-0.125" diameter responses, 25 per inch 2'5"-3'0": pinhole-0.25" diameter responses, 25 per inch		at 2' 0": wooden window latch or foreign object 2' 2"-3' 0": very dark gray, medium soft, silt	2'0": 14.4 ppm 2'6": 54.8 ppm		
3	3'3"-3'6": No response at 3'3": 2 pinhole diameter responses 3'6"-4'2": No response at 3'6": 1 pinhole diameter response	3'0"-3'3": stained with sheen 3'3"-4'3": stained with sheen, pinhole-0.25" diameter oozing NAPL droplets, 20-25 per inch	3'0"-3'4": pinhole diameter responses, 2-5 per inch 3'4"-3'6": pinhole-0.125" diameter responses, 10-15 per inch 3'6"-4'1": pinhole diameter responses, 1-2 per inch	3'0"-3'6": No response 3'6"-4'1": 25%	3' 0"-6' 0": dark gray, black, soft, very moist silt w little clay	3'0": 109.7 ppm 3'6": 25.5 ppm		
4	4'2"-4'3": 2 pinhole diameter responses 4'3"-4'6": pinhole-0.125" diameter responses, 5-10 per inch 4'6"-4'7": 2 pinhole diameter responses 4'7"-4'9": pinhole-0.125" diameter responses, 5-10 per inch 4'9"-4'11": No response at 4'11": 4 pinhole diameter 4'11"-5'1": No response	4'3"-4'9": stained with sheen, pinhole-0.5" diameter NAPL droplets, 20-25 per inch 4'9"-5'9": stained with sheen, pinhole-0.25" diameter NAPL droplets, 20-25 per inch	4'1"-4'7": pinhole-0.125" diameter responses, 2-5 per inch 4'7"-5'3": pinhole diameter responses, 2-5 per inch	4'1"-5'1": 50%	at 4' 7": <2" long fibrous material	4'0": 38.8 ppm 4'6": 65.2 ppm		
5	5'1"-5'2": pinhole-0.25" diameter responses, 10-15 per inch 5'2"-5'5": No response at 5'5": 5 pinhole diameter responses 5'5"-10'4": No response	5'9"-6'0": stained with sheen, pinhole-0.5" diameter NAPL droplets, 25 per inch	5'3"-5'10": pinhole-0.125" diameter responses, 5-10 per inch 5'10"-6'0": pinhole diameter responses, 2-5 per inch	5'1"-5'6": 10% 5'6"-10'3": No response	at 5' 10": 2" long wood fragment	5'0": 33 ppm 5'6": 20.2 ppm		
6		6'0"-10'0": stained without sheen	6'0"-6'3": No response at 6'3": 1 - pinhole diameter response 6'3"-6'5": No response at 6'5": 1 - pinhole diameter response 6'5"-6'11": No response at 6'11": 3 - pinhole diameter responses 6'11"-7'7": No response		6' 0"-6' 8": dark olive gray, loose, wet gravelly silt (gravel <1.5" diameter, subangular) 6' 8"-7' 7": dark olive gray, very soft, wet sandy silt, trace gravel <0.5" diameter, subangular	6'0": 11.3 ppm 6'6": 1.9 ppm		
7			7'7"-7'11": pinhole diameter responses, 1-3 per inch 7'11"-8'3": No response		at 7' 0": 3" x 1" gravel piece 7' 7"-8' 4": brownish olive gray, very soft, very moist little gravel	7'0": 8.7 ppm 7'6": 430 ppm		
8			8'3"-8'7": pinhole-0.125" diameter responses, 5-10 per inch 8'7"-9'0": No response		8' 4"-8' 8": dark gray, very soft, very moist sandy silt, little gravel <0.75" diameter 8' 8"-9' 10": 4" long twig fragment 8' 8"-9' 10": dark gray, very soft, very moist gravel with silt (gravel angular to subangular, <3" x 2" diameter)	8'0": 1028 ppm 8'6": 1298 ppm		

LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:			A-08b 2/6/2018 11:34 H. Cannarella, D. Burge, M. Conlon OSI	SAMPLING METHOD: CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 20'2" NORTHING/EASTING: 718662.02, 633824.61 DEPTH TO TOP OF SEDIMENT: 2.3	Comments:			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
9			at 9'0": 1 - pinhole diameter response 9'0"-10'0": No response		9' 10"-10' 3": dark gray, very soft, very moist silty gravel 9' 10"-10' 3": 5" x 3" diameter gravel piece	9'0": 38.6 ppm 9'6": 25.7 ppm		
10	10'4"-10'7": pinhole-0.125" diameter responses, 5-15 per inch 10'7"-10'7.5": No response at 10'7.5": 1 pinhole diameter response 10'7.5"-10'9": No response 10'9"-10'10.5": pinhole diameter responses, 2-5 per inch 10'10.5"-11'0": 3 - 0.125" responses, 4 - 0.25" responses, 5 pinhole diameter responses	10'0"-11'0": stained with sheen at 10'8": stained with sheen, 0.25" oozing NAPL droplets, 20-25 per inch	at 10'0": 1 - pinhole diameter response 10'0"-11'0": No response	10'3"-11'0": 25%	10' 3"-11' 0": dark gray, very soft, very moist silt, trace clay at 10' 8": trace 0.5" diameter gravel at 10' 10": 1" long fibrous material	10'0": 34.7 ppm (measured at 9'10" due to rock) 10'6": 444.6 ppm		
11	11'0"-11'1": 1 - 1" x 0.5" response, 4 pinhole diameter responses 11'1"-11'4.5": 12 pinhole-0.50" diameter responses 11'4.5"-11'7": No response 11'7"-11'9.5": 5 pinhole-0.50" diameter responses 11'9.5"-11'11": 10 pinhole-0.25" diameter response 11'11"-12'0.5": 30% coverage	11'0"-11'11": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10 per inch 11'11"-13'1.5": stained with sheen, pinhole-0.5" diameter NAPL droplets	11'0"-11'10": pinhole-0.125" diameter responses, 5-10 per inch at 11'0": 2 - pinhole-0.125" diameter responses 11'10"-12'0": 2 - pinhole diameter responses	11'0"-11'9.5": 50% 11'9.5"-12'1": 60-70%	11' 0"-11' 11": dark gray, soft, moist silty 11' 11"-15' 2": olive , dark gray, soft, moist silty, trace organic/fibrous material	11'0": ppm 11'6": 107.5 ppm		
12	12'0.5"-12'2": No response 12'2"-12'4": 7 - pinhole-0.125" diameter responses 12'4"-12'5": 1 - 1.00" diameter response 12'5"-12'6": No response 12'6"-12'9": 4 pinhole-0.125" diameter responses 12'9"-13'2": 10 pinhole-0.50" diameter responses		12'0"-12'3": pinhole-0.125" diameter responses, 10-15 per inch 12'3"-13'2": pinhole-0.125" diameter responses, 2-5 per inch	12'1"-12'10": 50% 12'10"-13'0": 15%		12'0": 477.5 ppm 12'6": 196.4 ppm		
13	13'2"-13'5": 20 pinhole-0.25" diameter responses 13'5"-14'1.5": pinhole-0.125" diameter responses, 2-5 per inch	13'1.5"-13'8.5": stained with sheen, pinhole-0.75" diameter oozing NAPL droplets 13'8.5"-14'6": stained with sheen, pinhole-0.75" diameter NAPL droplets	13'2"-13'9": pinhole-0.125" diameter responses, 5 per inch 13'9"-13'10": 30 - pinhole-0.125" diameter responses 13'10"-15'2": pinhole-0.125" diameter responses, 5-10 per inch	13'0"-13'5": 50% 13'5"-14'7": 15%	at 13'1.5": trace organic/fibrous material	13'0": 509.2 ppm 13'6": 546.2 ppm		
14	14'1.5"-14'3.5": No response 14'3.5"-14'5": 3 - pinhole-0.125" diameter responses 14'5"-14'7.5": 5 - pinhole-0.50" diameter responses 14'7.5"-14'9": 4 - 0.5" x 1" responses 14'9"-15'0": 10 - up to 0.125" x 0.5" responses	14'6"-14'8": stained with sheen, cluster of 5 - pinhole-1" diameter NAPL droplets 14'8"-15'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-10 per inch		14'7"-14'9": 50% 14'9"-15'2": 10%		14'0": 520.9 ppm 14'6": 536.2 ppm		
15	15'0"-15'2": pinhole-0.125" diameter responses, 2 per inch 15'2"-16'10": No response	15'2"-15'6": stained with very light sheen 15'6"-15'11": stained with light sheen 15'11"-16'4.5": stained without sheen	15'2"-15'5": pinhole diameter responses, 1-2 per inch 15'5"-15'6": 1 - 1" response (fibrous) 15'6"-16'2": pinhole diameter responses, 2-5 per inch	15'2"-17'1": No response	15' 2"-18' 10.5": dark olive gray, soft, silt 15' 10"-15' 11": organic fibrous dark material	15'0": 530.3 ppm 15'6": 32 ppm		
16	16'10"-17'4": 10 pinhole diameter responses	16'4.5"-16'10.5": stained with sheen 16'10.5"-17'8": stained with sheen, 3 - pinhole-0.125" diameter NAPL droplets	16'2"-16'4": No response 16'4"-17'9": pinhole diameter responses, 5 per inch			16'0": 21.6 ppm 16'6": 58.9 ppm		
17	17'4"-17'5": 5 pinhole diameter responses 17'4"-17'5": 1 - 0.25" response 17'4"-17'5": 1 - 0.75" response 17'5"-17'9": 40% coverage 17'9"-17'10": 3 - pinhole-0.125" diameter responses 17'10"-20'2": No response	17'8"-17'9.5": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch 17'9.5"-18'10.5": stained with light sheen, 5-10 - pinhole diameter NAPL droplets	17'9"-17'10": 3 - pinhole-0.125" diameter responses 17'10"-20'2": pinhole diameter responses, 5 per inch	17'1"-17'5": 10% 17'5"-17'10": 30% 17'10"-19'2": No response		17'0": 95.5 ppm 17'6": 134.4 ppm		

LOCATION: A-08b DATE: 2/6/2018 TIME: 11:34 LOGGED BY: H. Cannarella, D. Burge, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 20'2" NORTHING/EASTING: 718662.02, 633824.61 DEPTH TO TOP OF SEDIMENT: 2.3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
18		18'10.5"-19'3": stained with light sheen, 1 - 2" x 0.25" NAPL droplet			18' 10.5"-19' 3": 5" long rock 18' 10.5"-19' 3": dark olive gray with some dark gray, soft, silt	18'0": 61.1 ppm 18'6": 43.8 ppm		
19		19'3"-20'2": None		19'2"-19'3": 5% 19'3"-20'2": No response	19' 3"-20' 2": olive gray, soft, silt at 19' 5": dark gray areas/patches at 19' 7": dark gray areas/patches	19'0": 94.5 ppm 19'6": 25.5 ppm		
20						20'0": 62 ppm		

A-13A

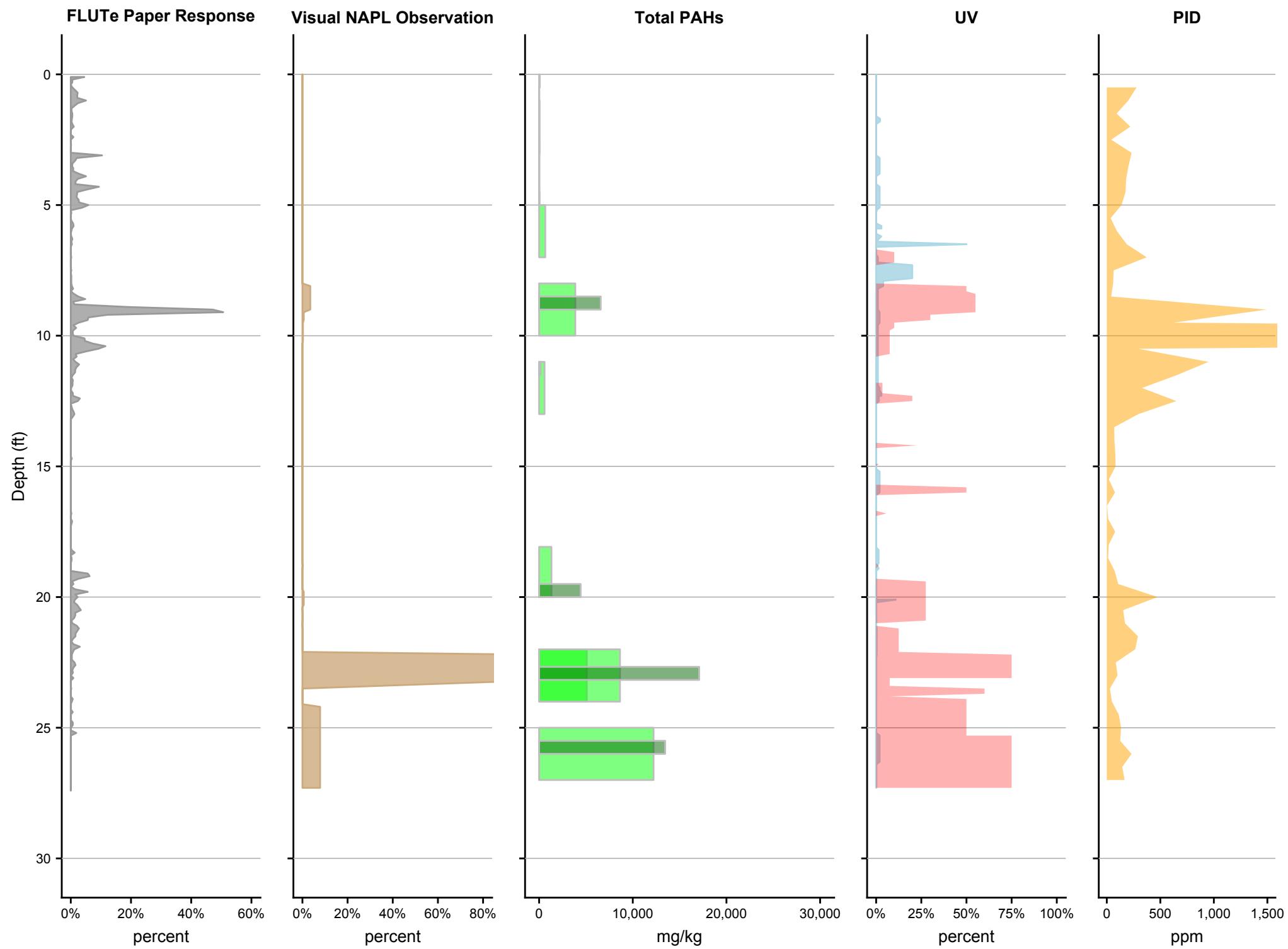


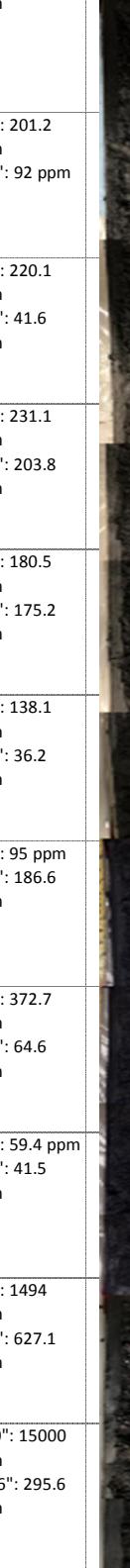
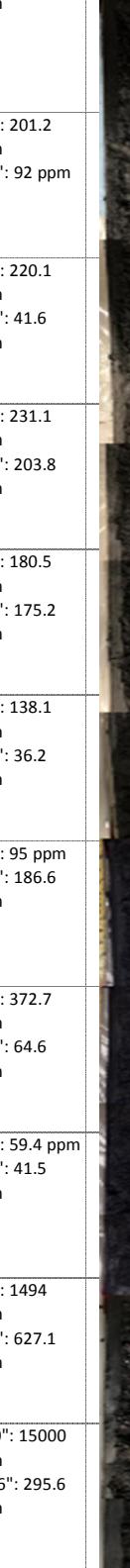
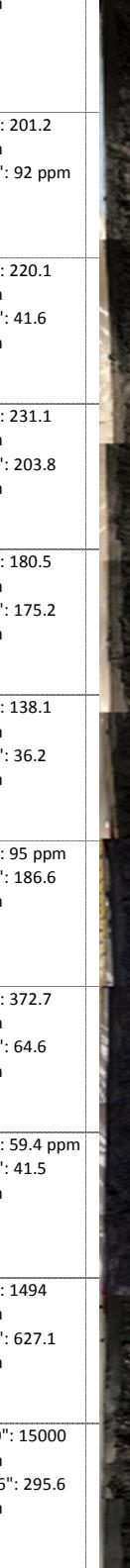
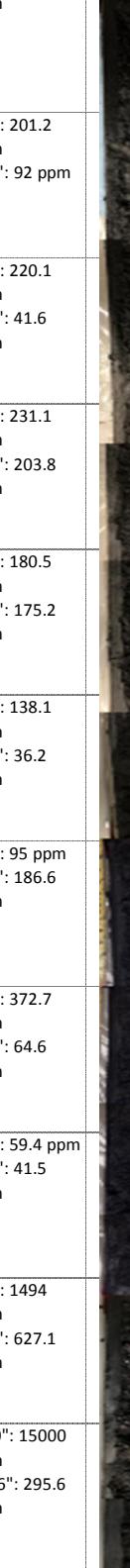
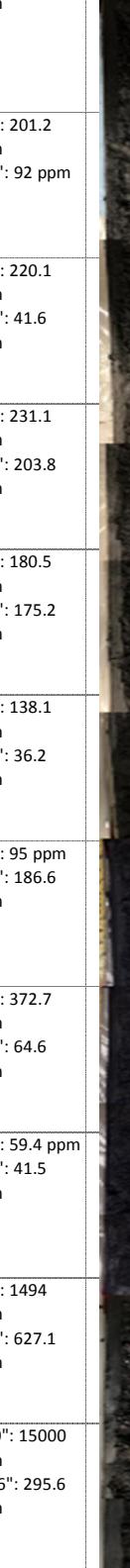
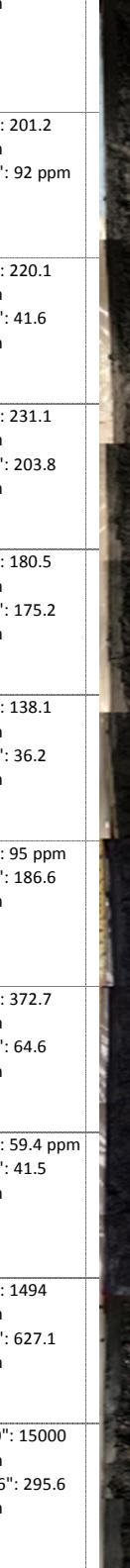
FLUTe Paper Reactions		Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
Depth								
0	0'0"-10'2": No response	0'0"-5'0": stained without sheen	0'0"-1'9": No response	0'0"-10'0": No response	0' 0"-0' 3": dark gray, very soft, very wet silt 0' 3"-4' 6": dark gray, soft, very wet silt at 0' 8": 0.25" diameter shell fragment	0'6": 4.1 ppm		
1			at 1'9": 2 - pinhole-0.25" diameter responses 1'9"-2'10": pinhole diameter responses, 2 per inch		At 1'11": 0.25" diameter shell fragment	1'0": 26.8 ppm 1'6": 8 ppm		
2			2'10"-3'3": No response			2'0": 16.6 ppm 2'6": 28.4 ppm		
3			at 3'3": 3 - pinhole diameter responses 3'3"-3'6": No response 3'6"-4'5": pinhole diameter responses, 5 per inch			3'0": 7.2 ppm 3'6": 21.8 ppm		
4			4'5"-5'0": pinhole diameter responses, 5-10 per inch		at 4' 0": 0.25" diameter white shell fragment 4' 6"-4' 9": dark gray, soft, very moist to wet silt at 4' 8": 2 - 0.5" white shell fragments 4' 9"-5' 0": dark gray, medium soft, v moist to wet silt	4'0": 90.9 ppm 4'6": 123 ppm		
5		5'0"-10'0": stained with light sheen	5'0"-5'8": pinhole-0.25" diameter responses, 1 per inch 5'8"-5'11": pinhole diameter responses, 15 per inch 5'11"-6'4": pinhole diameter responses, 2 per inch		5' 0"-6' 5": dark gray, medium soft, very moist silt	5'0": 89.9 ppm 5'6": 1 ppm		
6			6'4"-6'6": 2 - 0.25" thick layers 6'4"-6'6": 1 - 0.375" thick layer 6'6"-6'7": 1 - 0.25" response 6'7"-6'10": pinhole diameter responses, 5 per inch 6'10"-7'7": 0.125" thick layers, 3 per inch		6' 5"-8' 5": medium dark gray, medium soft, moist silt	6'0": 839 ppm 6'6": 242 ppm		
7			7'7"-8'2": pinhole-0.50" diameter responses, 10 per inch			7'0": 81.4 ppm 7'6": 58.4 ppm		

LOCATION: A-13a DATE: 1/23/2018 TIME: 11:40 LOGGED BY: D. Burge DRILLING COMPANY: Alpine			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 17'10" NORTHING/EASTING: 718333.77, 633715.66 DEPTH TO TOP OF SEDIMENT:	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
8			8'2"-8'8": pinhole-0.125" diameter responses, 5-10 per inch at 8'8": 1 - 0.125" thick layer 8'8"-10'0": pinhole-0.25" diameter responses, 5-10 per inch		8' 5"-8' 7": dark gray, medium soft, moist silt 8' 7"-10' 0": medium dark gray, medium soft, moist silt	8'0": 8.2 ppm 8'6": 5.8 ppm		
9								
10	at 10'2": 1 - 0.125" response 10'2"-17'10": No response	10'0"-10'3": stained with sheen, 0.25" NAPL droplets, 3 per inch 10'3"-13'10": stained with light sheen	10'0"-10'4": pinhole diameter responses, 5 per inch at 10'2": 1 - 0.25" response 10'4"-10'6": 5 - 0.25" x 0.125" responses 10'6"-11'3": pinhole diameter responses, 5-10 per inch	10'0"-10'1": 1 - 0.25" diameter response 10'1"-14'1": No response	10' 0"-10' 3": very dark gray, medium soft, moist silt 10' 3"-13' 10": gray to dark gray, medium soft, moist silt	10'0": 2.1 ppm 10'6": 18.2 ppm		
11			at 11'3": 3 - 0.25" x 0.125" responses 11'3"-11'5": pinhole diameter responses, 5-10 per inch 11'5"-12'0": 0.25" responses, 5-10 per inch					
12			12'0"-12'2": 0.125" responses, 10 per inch 12'2"-12'5": pinhole diameter responses, 5 per inch 12'5"-14'3": pinhole-0.125" diameter responses, 5-10 per inch					
13		13'10"-14'0": stained with light sheen, 0.25" NAPL droplets, 5-10 per inch			13' 10"-17' 10": dark gray, medium soft, moist silt	13'0": 3842 ppm 13'6": 34 ppm		
14		14'0"-15'3": stained with sheen	14'3"-14'5": 1 - 1.25" x 1.5" response 14'5"-14'7": pinhole diameter responses, 5 per inch 14'7"-14'8": 1 - 0.125" x 0.25"-0.5" response 14'8"-15'0": pinhole diameter responses, 5 per inch	14'1"-14'2": 1 - 1" x 0.25" response 14'2"-14'3": No response 14'3"-14'3.5": 1 - 0.5" x 0.125" response 14'3.5"-16'6": No response				
15		15'3"-15'4": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch 15'4"-15'11": stained with sheen 15'11"-16'1": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	15'0"-15'7": pinhole diameter responses, 5-10 per inch at 15'7": 1 - 0.25" x 0.125" response 15'7"-17'3": pinhole diameter responses, 5-10 per inch					

LOCATION: A-13a DATE: 1/23/2018 TIME: 11:40 LOGGED BY: D. Burge DRILLING COMPANY: Alpine			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 17'10" NORTHING/EASTING: 718333.77, 633715.66 DEPTH TO TOP OF SEDIMENT:	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
16		16'1"-17'3": stained with sheen		at 16'6": 1 - 1.5" x 0.125" response 16'6"-16'8": No response 16'8"-16'11": 10 - 15% 16'11"-17'4": No response		16'0": 20.9 ppm 16'6": 20.1 ppm		
17		17'3"-17'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 17'8"-17'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10 per inch	17'3"-17'10": pinhole diameter responses, up to 5 per inch	17'4"-17'7": up to 10% 17'7"-17'10": 80 - 90%		17'0": 18.5 ppm 17'6": 43.1 ppm		

A-14A

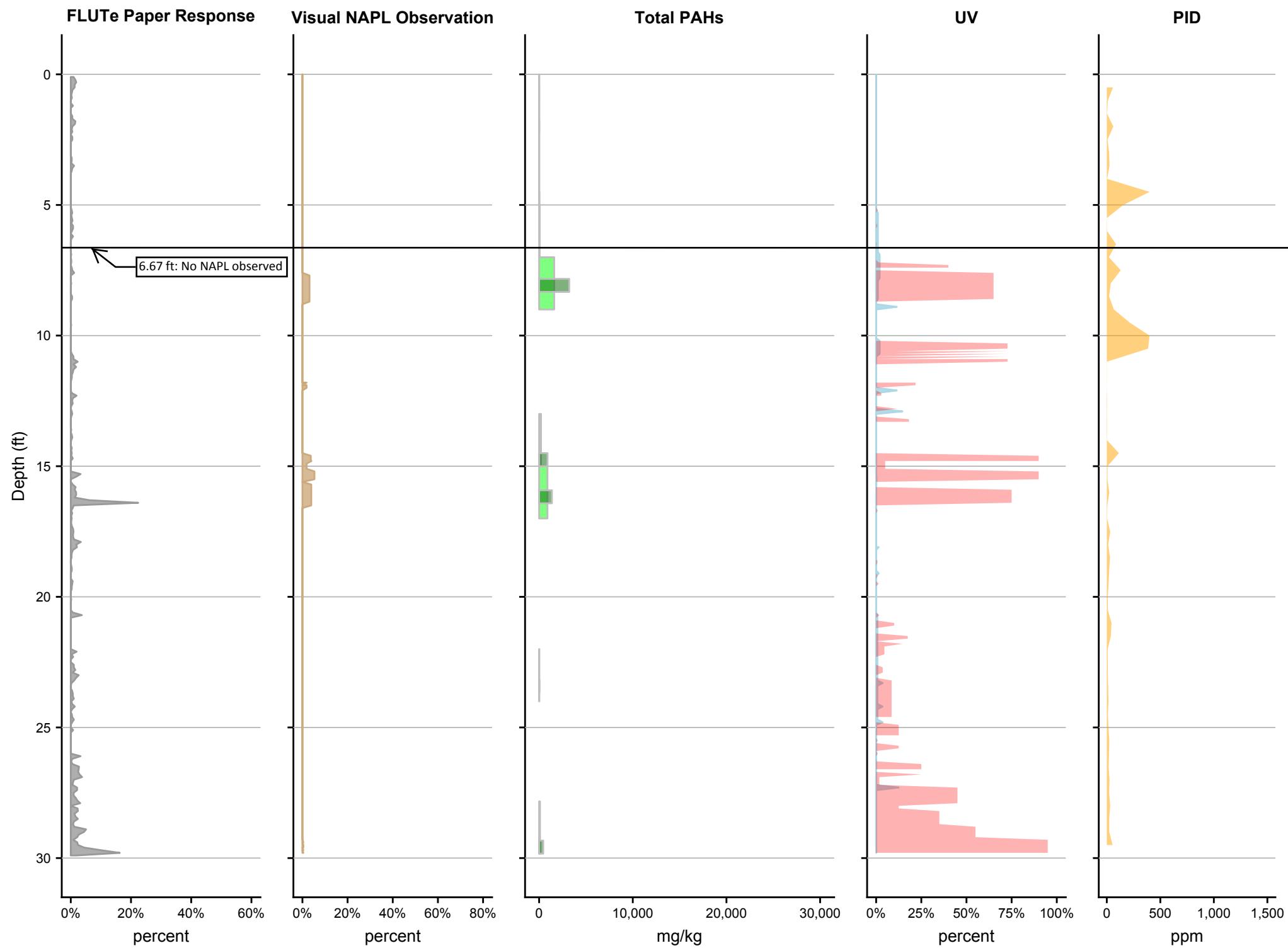


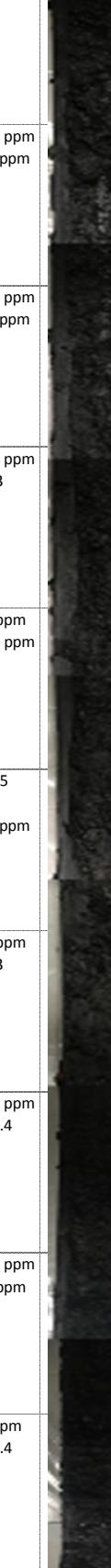
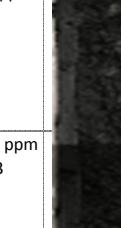
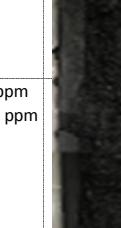
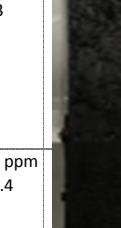
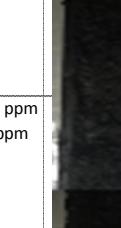
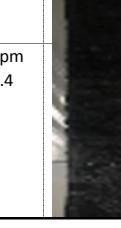
LOCATION: A-14a DATE: 2/8/2018 TIME: 14:25 LOGGED BY: H. Cannarella, D. Burge, E. Emery, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 274" NORTHING/EASTING: 718278.42, 633677.41 DEPTH TO TOP OF SEDIMENT: 3.2	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-8'1": No response	0'0"-4'7": stained without sheen	0'0"-1'0": pinhole diameter responses, 2-5 per inch	0'0"-6'9": No response	0' 0"-0' 6.5": very dark gray, very soft, silt, trace fine to very fine sand at 0' 3.5": trace organic matter 0' 6.5"-5' 1": dark gray, soft, silt	0'6": 278.2 ppm		
1			1'0"-1'8": pinhole diameter responses, 5-10 per inch 1'8"-1'9": 3 - pinhole-0.25" diameter responses 1'9"-3'2": pinhole diameter responses, 5-10 per inch			1'0": 201.2 ppm 1'6": 92 ppm		
2						2'0": 220.1 ppm 2'6": 41.6 ppm		
3			3'2"-3'10": pinhole-0.125" diameter responses, 10 per inch 3'10"-4'3.5": pinhole diameter responses, 0-2 per inch			3'0": 231.1 ppm 3'6": 203.8 ppm		
4		4'7"-5'1": stained with light sheen	4'3.5"-5'1": pinhole-0.125" diameter responses, 5-10 per inch		at 4' 11.5": 0.25" diameter shell fragmet	4'0": 180.5 ppm 4'6": 175.2 ppm		
5		5'1"-7'0": stained with sheen	5'1"-5'3": No response at 5'3": 1 - 0.13" response 5'3"-5'9": No response 5'9"-5'11": pinhole-0.125" diameter responses, 10-15 per inch 5'11"-6'3": No response		5' 1"-5' 7": dark gray, soft, moist silt w little clay at 5' 4": 0.25" diameter white shell fragment 5' 7"-8' 1": dark gray, medium soft, moist silt w little clay	5'0": 138.1 ppm 5'6": 36.2 ppm		
6			at 6'3": 2 - 0.25" diameter responses at 6'5": 1 - pinhole diameter response at 6'6": 1 - 0.5" wide streak 6'6"-6'8": No response 6'8"-7'0": pinhole diameter responses, 5 per inch	6'9"-7'3": 10%		6'0": 95 ppm 6'6": 186.6 ppm		
7		7'0"-7'9": stained with heavy sheen 7'9"-8'1": stained with sheen	7'0"-7'4": pinhole-0.125" diameter responses, 2-5 per inch 7'4"-7'9": pinhole-0.5" diameter responses, 20% iridescent 7'9"-8'1": pinhole-0.125" diameter responses, 20 per inch	7'3"-8'1": No response	7' 0"-7' 9": up to 3" x 1" wood fragments, leaf and twig fragments, 1" diameter felt washer, trace sand sized-fragments	7'0": 372.7 ppm 7'6": 64.6 ppm		
8	8'1"-8'2.5": 2 pinhole diameter responses 8'2.5"-8'6.5": pinhole-0.125" diameter responses, 10 per inch 8'6.5"-8'8": 8 pinhole diameter responses (25 per inch) 8'8"-8'11": up to 35-40% coverage 8'11"-9'1": pinhole diameter responses, 15 per inch	8'1"-9'0": stained with heavy sheen, pinhole-0.25" diameter oozing NAPL droplets, 25-30 per inch	8'1"-8'4": pinhole-0.125" diameter responses, 5 per inch 8'4"-9'1": pinhole-0.125" diameter responses, 2-5 per inch	8'1"-8'5": 50% 8'5"-9'1": 50-60%	8' 1"-9' 0": dark gray to very dark gray, medium soft, silt	8'0": 59.4 ppm 8'6": 41.5 ppm		
9	9'1"-9'5.5": No response 9'5.5"-9'8": 3 pinhole-0.125" diameter responses 9'8"-12'1": No response	9'0"-9'5": stained with heavy sheen, pinhole-0.25" diameter NAPL droplets, 2-5 per inch 9'5"-9'9": stained with heavy sheen, pinhole-0.25" diameter NAPL droplets, 0-2 per inch 9'9"-10'3": stained with heavy sheen, 0.125" diameter NAPL droplets, 0-2 per inch	9'1"-9'6": pinhole-0.125" diameter responses, 5-10 per inch 9'6"-12'0": pinhole-0.125" diameter responses, 2-5 per inch	9'1"-9'5": 30% 9'5"-9'8": 10% 9'8"-10'8": 5-10%	9' 0"-9' 9": dark olive gray, medium soft, silt 9' 9"-13' 1": dark gray, medium soft, silt	9'0": 1494 ppm 9'6": 627.1 ppm		
10		10'3"-11'10": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch		10'8"-11'10": No response		10'0": 15000 ppm 10'6": 295.6 ppm		

LOCATION: A-14a DATE: 2/8/2018 TIME: 14:25 LOGGED BY: H. Cannarella, D. Burge, E. Emery, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 274" NORTHING/EASTING: 718278.42, 633677.41 DEPTH TO TOP OF SEDIMENT: 3.2	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11		11'10"-12'3": stained with prominent sheen, 1 - pinhole diameter NAPL droplet		11'10"-12'4": 2-5%		11'0": 950.8 ppm 11'6": 658.8 ppm		
12	12'1"-12'3": 5 pinhole-0.125" diameter responses 12'3"-13'0.5": No response	12'3"-13'1": stained with prominent sheen, pinhole diameter NAPL droplets, 0-2 per inch 12'3"-12'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-2 per inch	12'0"-12'3": pinhole-0.125" diameter responses, 10 per inch 12'3"-12'4": pinhole-0.125" diameter responses, 10-15 per inch 12'3"-12'4": blue fluorescent response, coating a piece of organic material surrounded by pinhole-0.125" diameter responses, 10-15 per inch 12'4"-13'1": pinhole diameter responses, 5-10 per inch	12'4"-12'6": discontinuous fibrous layer, 20% 12'6"-14'3": No response	at 12' 1": trace leaf or plastic 12' 3"-12' 6": a little organic matter layer	12'0": 329.4 ppm 12'6": 650.3 ppm		
13	at 13'0.5": 1 - 0.125" diameter stain 13'0.5"-18'7.5": No response	13'1"-18'1": stained with sheen 13'1"-13'2": stained with sheen, 2 - pinhole diameter diameter NAPL droplets	13'1"-13'5": pinhole diameter responses, 2-5 per inch at 13'5": 15 - pinhole diameter responses forming a noncontinuous layer 13'5"-13'8": pinhole diameter responses, 2-5 per inch 13'8"-14'1": pinhole diameter responses, 2 per inch		13' 1"-14' 8": dark gray, medium soft, moist silt w little clay	13'0": 295.1 ppm 13'6": 69.6 ppm		
14			14'1"-15'3": pinhole diameter responses, 5 per inch	at 14'3": 1 - 1.00" diameter response 14'3"-14'11": No response at 14'11": 1 - 0.25" diameter response 14'11"-15'9": No response	14' 8"-16' 2": dark gray, stiff, moist silt w little clay	14'0": 71.4 ppm 14'6": 79.4 ppm		
15			15'3"-16'0": pinhole-0.125" diameter responses, 5-10 per inch	15'9"-16'0": 50%		15'0": 82.2 ppm 15'6": 19.5 ppm		
16			16-16'10: pinheads 5-10 per inch 16'10-18'1: pinheads 5 per inch	16'0"-16'10": No response 16'10"-18'10": No response at 16'10": 1 - 0.50" diameter response	16' 2"-18' 1": mottled dark gray and olive gray, stiff, moist silt w little clay	16'0": 76.9 ppm 16'6": 2.9 ppm		
17					at 17' 5": clear plastic and white plastic 3" in diameter	17'0": 12 ppm 17'6": 78.2 ppm		
18	18'7.5"-19'1.5": No response at 18'7.5": 1 pinhole diameter response	18'1"-19'9": stained with sheen at 18'9": stained with sheen, 1 - 0.125" x 0.25" diameter NAPL droplet	18'1"-18'3": pinhole diameter responses, 5-10 per inch 18'3"-23'10": pinhole diameter responses, 15-20 per inch 18'3"-18'8": 15 - 0.25"-0.5" long fibrous responses at 18'10": 1 - 0.5" long fibrous response at 18'11": 1 - 0.25" diameter partial response	at 18'10": 1 - 0.25" diameter response 18'10"-19'4": No response	18' 1"-19' 1": olive gray, firm, clayey silt	18'0": 18.1 ppm 18'6": 12 ppm		
19	19'1.5"-19'8": No response at 19'1.5": 1 pinhole diameter response 19'8"-19'10": 4 pinhole diameter responses 19'10"-22'5": No response	at 19'9": stained with sheen, 1 - less than 0.125" diameter NAPL droplet 19'9"-20'4": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch		at 19'4": 1 - 0.25" diameter response 19'4"-19'5": No response 19'5"-20'11": 25-30%	19' 1"-20' 3": dark gray, firm, moist clayey silt	19'0": 73.5 ppm 19'6": 107 ppm		
20		20'4"-20'7": stained with sheen 20'7"-20'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 20'11"-21'3": stained with sheen	at 20'1": 1 - 0.5" x 0.75" film response	20'11"-21'2": No response	20' 3"-22' 3": dark olive gray, firm, moist clayey silt	20'0": 475 ppm 20'6": 153 ppm		
21		21'3"-22'3": stained with sheen, pinhole-0.125" diameter NAPL droplets	21'2"-22'3": 10 - 0.5" long fibrous material	21'2"-22'3": 10-15%		21'0": 170 ppm 21'6": 291 ppm		

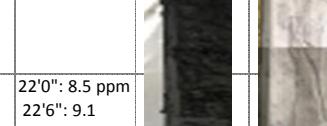
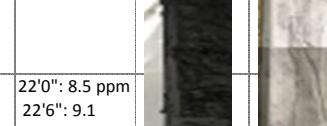
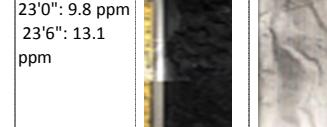
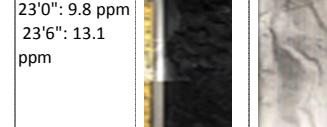
LOCATION: A-14a DATE: 2/8/2018 TIME: 14:25 LOGGED BY: H. Cannarella, D. Burge, E. Emery, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'4" NORTHING/EASTING: 718278.42, 633677.41 DEPTH TO TOP OF SEDIMENT: 3.2	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22	22'5"-22'8": pinhole diameter responses, 10 per inch 22'8"-22'10.5": No response 22'10.5"-23'1": No response at 22'10.5": 1 - 0.125" diameter response	22'3"-27'4": stained with sheen 22'3"-23'3": stained with sheen, pinhole-3" diameter NAPL droplets, 10-15 per inch		22'3"-23'1": 75%	22' 3"-27' 4": dark gray, medium soft, moist silt w trace clay	22'0": 265 ppm 22'6": 84.3 ppm		
23	23'1"-23'2": pinhole-0.25" diameter responses, 15 per inch 23'2"-23'10": No response 23'10"-24'0": 5 - 0.125" diameter responses	23'6"-24'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch	23'10"-25'4": pinhole diameter responses, 10-15 per inch	23'1"-23'6": 5-10% 23'6"-23'8": 60% 23'8"-23'11": 5-10% 23'11"-25'4": 50%		23'0": 100.4 ppm 23'6": 29.2 ppm		
24	24'0"-24'4": No response 24'4"-24'5": pinhole diameter responses, 10 per inch 24'5"-24'9": No response at 24'9": 2 - pinhole-0.25" diameter responses 24'9"-25'2": No response	24'2"-27'4": stained with sheen, pinhole-0.75" diameter NAPL droplets, 10 per inch				24'0": 48.2 ppm 24'6": 112.3 ppm		
25	at 25'2": 1 - pinhole-0.25" diameter response 25'2"-25'9": No response at 25'9": 3 - pinhole diameter responses 25'9"-26'3": No response		25'4"-26'4": pinhole-0.125" diameter responses, 5-10 per inch	25'4"-27'4": 75%	25'6": fibrous material 5" long	25'0": 133.1 ppm 25'6": 125.4 ppm		
26	at 26'3": 1 pinhole diameter response 26'3"-26'9.5": No response 26'9.5"-27'0.5": No response at 26'9.5": 1 pinhole-0.125" diameter response		26'4"-27'4": pinhole diameter responses, 20-30 per inch 26'4"-27'4": fibrous material up to 0.25" long		26'0": fibrous material 6" long	26'0": 231.8 ppm 26'6": 144.3 ppm		
27	at 27'0.5": 1 pinhole diameter response 27'0.5"-27'4": No response					27'0": 166.5 ppm		

A-14A-1



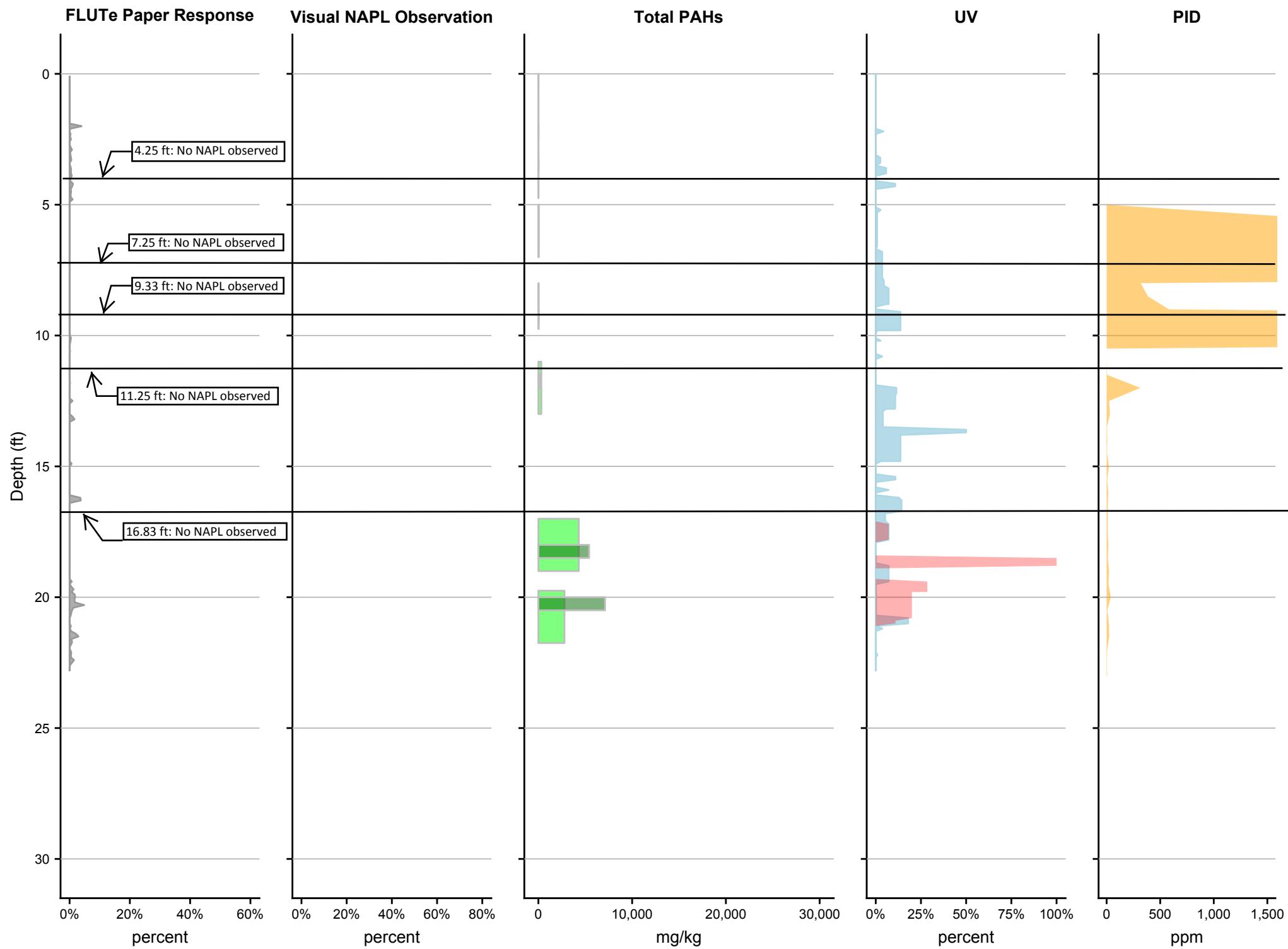
LOCATION: A-14a-1 DATE: 3/8/2018 TIME: 12:02 LOGGED BY: M. Conlon, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'10" NORTHING/EASTING: 718260.61, 633716.51 DEPTH TO TOP OF SEDIMENT: 4.5	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-7'10": No response	0'0"-5'0": stained without sheen	0'0"-0'11": pinhole diameter responses, 0-2 per inch 0'0"-2'9": trace fibrous material up to 0.25" 0'11"-2'9": pinhole diameter responses, 5 per inch	0'0"-5'2": No response	0' 0"-1' 8": dark gray, soft, very moist silt at 0' 11": 1" long trace wood fragment	0'6": 58.5 ppm		
1					1' 8"-5' 4": dark olive gray, soft, moist silt	1'0": 10.1 ppm 1'6": 2.4 ppm		
2			2'9"-3'5": pinhole diameter responses, 0-2 per inch			2'0": 60.6 ppm 2'6": 7.1 ppm		
3			3'5"-5'4": pinhole diameter responses, 2-5 per inch 3'5"-5'4": trace fibrous material up to 0.25"			3'0": 21.9 ppm 3'6": 25.3 ppm		
4						4'0": 3.3 ppm 4'6": 400 ppm		
5		5'0"-7'4": stained with light sheen	5'4"-6'11": pinhole-0.125" diameter responses, 2-5 per inch	5'2"-5'10": No response at 5'2": 3 - 0.125" diameter responses 5'10"-6'6": No response at 5'10": 2 - 0.125" diameter responses	5' 4"-7' 4": dark olive gray, medium soft, moist silt, trace clay	5'0": 154.5 ppm 5'6": 0.7 ppm		
6			6'11"-7'9": pinhole-0.125" diameter responses, 5-10 per inch	at 6'6": 1 - 0.125" diameter response 6'6"-7'2": No response		6'0": 2.7 ppm 6'6": 86.3 ppm		
7	7'10"-8'1.5": 10 - pinhole diameter responses	7'4"-7'8": stained with sheen, pinhole diameter NAPL droplets, 2 per inch 7'8"-8'8": stained with sheen, pinhole-0.75" diameter NAPL droplets, 2-4 per inch	at 7'5": cluster of fibrous materials up to 0.75" long 7'9"-8'7": pinhole-0.125" diameter responses, 5 per inch	7'2"-7'4": No response at 7'2": 1 - 0.25" diameter response 7'4"-7'5": 40% 7'5"-7'7": No response 7'7"-8'7": 60 - 70%	7' 4"-8' 8": dark olive gray with 4" wide alternating bands of dark gray, medium soft, moist silt, trace clay	7'0": 20.2 ppm 7'6": 130.4 ppm		
8	8'1.5"-8'3": 15 - pinhole diameter responses 8'3"-8'5": 5 - pinhole diameter responses 8'5"-14'7": No response	8'8"-9'8": stained without sheen	8'7"-9'7": pinhole diameter responses, 10 per inch 8'7"-9'7": trace fibrous material up to 0.25" at 8'11": 2 - 0.50" diameter responses	8'7"-10'4": No response	8' 8"-9' 8": olive gray, medium soft, moist silt, trace clay	8'0": 36.7 ppm 8'6": 22 ppm		
9		9'8"-10'1": stained with sheen	9'7"-10'2": pinhole diameter responses, 2-5 per inch		9' 8"-10' 1": dark olive gray, medium soft, moist silt, trace clay	9'0": 66 ppm 9'6": 213.4 ppm		

LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		A-14a-1 3/8/2018 12:02 M. Conlon, E. Emery OSI	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 29'10" 718260.61, 633716.51 4.5	Comments:			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
10		at 10'0": stained with sheen, 0.5" sheen 10'1"-10'8": stained without sheen 10'8"-12'0": stained with sheen	10'2"-10'8": pinhole-0.125" diameter responses, 10 per inch 10'2"-10'8": trace fibrous material up to 0.50" 10'8"-12'0": pinhole diameter responses, 2-5 per inch 10'8"-12'0": trace fibrous material up to 0.50"	at 10'4": 1 - 2.5" x 8" response 10'4"-10'4.5": No response at 10'4.5": 1 - 0.5" diameter response 10'4.5"-10'8": 10% 10'8"-11'10": No response	10' 1"-10' 6": olive gray, medium soft, moist silt, trace clay 10' 6"-10' 8": dark gray, medium soft, moist silt, trace clay 10' 6"-10' 8": 2.5" long organic material (leaf) 10' 8"-15' 8": dark olive gray, medium soft, moist silt, trace clay	10'0": 399.5 ppm 10'6": 385.7 ppm		
11		11'9"-12'0": stained with sheen, pinhole-0.50" diameter NAPL droplets, 0-2 per inch		11'10"-11'11": 1 - 1.5" x 0.5" response 11'11"-12'3": No response		11'0": 1.1 ppm 11'6": 1.3 ppm		
12		12'0"-14'7": stained with sheen	12'0"-13'1": pinhole diameter responses, 5-10 per inch 12'0"-13'1": trace fibrous material up to 1" at 12'1": 2 - 0.50" diameter responses at 12'11": 1 - 1" x 0.5" response	12'3"-12'4": 2 - 0.25" diameter responses 12'4"-12'9.5": No response 12'9.5"-12'10": 1 - 0.5" diameter response 12'10"-13'3": No response	at 12' 4": trace fibrous cluster of material 12' 5"-12' 7": trace off-white residue	12'0": 0.5 ppm 12'6": 3.3 ppm		
13			13'1"-14'7": pinhole diameter responses, 2-5 per inch 13'1"-14'7": trace fibrous material up to 0.25"	13'3"-13'4": 1 - 2.5" x 0.25" response 13'4"-14'7": No response		13'0": 2.5 ppm 13'6": 3.4 ppm		
14	at 14'7": 1 - 0.125" diameter response 14'7"-15'2": No response	14'7"-14'9": stained with sheen, pinhole-0.50" diameter NAPL droplets, 2-4 per inch 14'9"-14'10": stained with sheen, 1 - 1.5" x 0.75" diameter NAPL droplet 14'10"-15'3": stained with sheen, pinhole-0.50" diameter NAPL droplets, 0-2 per inch	14'7"-14'10": pinhole diameter responses, 0-2 per inch 14'10"-15'3": pinhole diameter responses, 2-5 per inch	14'7"-14'10": 90% 14'10"-15'2": 5%		14'0": 1.9 ppm 14'6": 113.5 ppm		
15	15'2"-15'5": 15 - pinhole-0.125" diameter responses 15'5"-16'2": No response	15'3"-15'6": stained with sheen, up to 1" x 0.75" NAPL droplets, 2 per inch 15'6"-15'8": stained with sheen 15'8"-16'6": stained with sheen, pinhole-0.75" diameter NAPL droplets, 2-5 per inch	15'3"-15'5": pinhole diameter responses, 0-2 per inch 15'5"-15'8": pinhole diameter responses, 2-5 per inch 15'5"-15'8": trace fibrous material up to 0.50" 15'8"-17'2": pinhole diameter responses, 0-2 per inch 15'8"-20'8": trace fibrous material up to 0.50"	15'2"-15'6": 90% 15'6"-15'11": No response 15'11"-16'5": 75%	15' 8"-16' 6": dark olive gray, medium soft to firm, moist silt, trace clay	15'0": 7 ppm 15'6": 6 ppm		
16	16'2"-16'4": pinhead responses, 20% coverage 16'4"-27'7": No response	16'6"-17'9": stained without sheen		16'5"-16'8": No response 16'8"-18'7": No response at 16'8": 1 - 0.75" x 0.25" response	16' 6"-17' 9": medium soft to firm, moist silt, trace clay	16'0": 23.1 ppm 16'6": 5.2 ppm		
17		17'9"-18'3": stained with sheen	17'2"-18'4": pinhole diameter responses, 2-5 per inch		17' 9"-18' 3": alternating bands of dark gray and dark olive gray, medium soft to firm, moist silt, trace clay	17'0": 2.7 ppm 17'6": 32 ppm		
18		18'3"-19'6": stained without sheen	at 18'1": 1 - 0.25" diameter response 18'4"-20'8": pinhole diameter responses, 5-10 per inch	18'7"-18'8": 2 - 0.125" responses 18'8"-19'2": No response	18' 3"-19' 6": medium soft to firm, moist silt, trace clay	18'0": 13.4 ppm 18'6": 30.1 ppm		
19		19'6"-20'8": stained with light sheen	at 19'1": 1 - 0.25" diameter response	at 19'2": 1 - 0.25" x 0.125" response 19'2"-19'6": No response at 19'6": 1 - 0.25" diameter response 19'6"-20'8.5": No response	19' 6"-19' 9": alternating bands of dark gray and dark olive gray 19' 9"-20' 8": medium soft to firm, moist silt, trace clay	19'0": 22 ppm 19'6": 16.5 ppm		

LOCATION: A-14a-1 DATE: 3/8/2018 TIME: 12:02 LOGGED BY: M. Conlon, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'10" NORTHING/EASTING: 718260.61, 633716.51 DEPTH TO TOP OF SEDIMENT: 4.5	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
20		20'8"-24'10": stained with light sheen	20'8"-26'3": pinhole diameter responses, 10-15 per inch 20'8"-24'10": fibrous materials 0.25" in length, 0-3 per inch	at 20'8.5": 1 - 0.125" x 0.5" response 20'8.5"-21'0": No response	at 20' 0": band of fibrous organic material 20' 8"-24' 10": trace fibers 20' 8"-21' 1": dark olive gray, firm, moist silt, trace clay	20'0": 9 ppm 20'6": 9.6 ppm		
21				21'0"-21'1": 10% 21'1"-21'6": No response 21'6"-21'7": 15 - 20% 21'7"-21'10": No response at 21'10": 1 - 1" x 0.5" response 21'10"-22'3": 8 - pinhole-0.5" diameter responses	21' 1"-21' 8": dark gray, firm, moist silt, trace clay 21' 8"-27' 0": dark olive gray, firm, moist silt, trace clay	21'0": 43.7 ppm 21'6": 37.7 ppm		
22				22'3"-22'8": No response 22'8"-22'11": 2 - 0.25" diameter responses 22'8"-22'11": 1 - 0.125" x 3" diagonal partial layer 22'11"-23'2": No response	at 22' 0": white silty material, leaf fragments	22'0": 8.5 ppm 22'6": 9.1 ppm		
23			at 23'4": 1 - 0.25" response at 23'4": 1 - 0.5" x 0.25" response	23'2"-24'7": pinhole-0.5" diameter response, 0-3 per inch	at 23' 3": some fibrous material at 23' 4": 2" x 2" plastic film	23'0": 9.8 ppm 23'6": 13.1 ppm		
24		24'10"-29'10": stained with sheen	at 24'3": 1 - 0.25 x 0.50" response at 24'9": 1 - 0.25" x 0.5" response	24'7"-24'11": No response at 24'11": 1 - 0.5" diameter response 24'11"-25'4": 10 - 15%		24'0": 15.8 ppm 24'6": 10.3 ppm		
25		25'4"-26'0": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch		25'4"-25'6": No response at 25'6": 1 - 0.125" x 0.25" response 25'6"-25'8": No response 25'8"-25'10": 10 - 15% 25'10"-26'0": No response		25'0": 15.7 ppm 25'6": 23.5 ppm		
26			26'3"-29'10": pinhole diameter responses, 5-10 per inch	26'0"-26'4": No response at 26'0": 1 - 0.125" x 0.25" response 26'4"-26'5": No response at 26'4": 1 - 0.125" diameter response 26'5"-26'7": 25% 26'7"-26'9": No response 26'9"-26'10": 25% 26'10"-27'4": pinhole-0.125" diameter response, 10-15 per inch		26'0": 20.8 ppm 26'6": 17.3 ppm		
27	at 27'7": 1 - pinhole diameter response 27'7"-28'4": No response	27'4"-28'8": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	at 27'4": 2 - 0.0625" thick partial bands, potentially across entire core diameter	27'4"-27'11": 40 - 50% 27'11"-28'3": 10 - 15%	27' 0"-29' 3": dark olive gray, firm, moist silt, trace clay, with 0.0625" - 0.5" dark gray bands	27'0": 25.4 ppm 27'6": 22.3 ppm		
28	at 28'4": 1 - pinhole diameter response 28'4"-28'11": No response at 28'11": 1 - pinhole diameter response 28'11"-29'5": No response	28'8"-29'5": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch		28'3"-28'10": 30 - 40% 28'10"-29'4": 50 - 60%	28' 10"-28' 11": feather material	28'0": 31.3 ppm 28'6": 22.7 ppm		

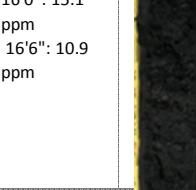
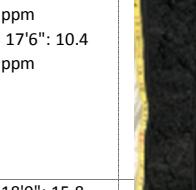
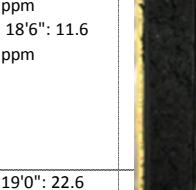
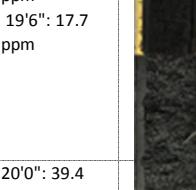
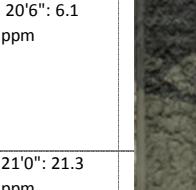
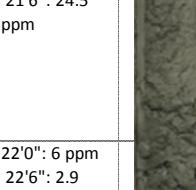
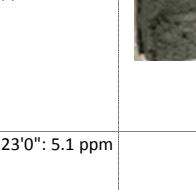
LOCATION: A-14a-1 DATE: 3/8/2018 TIME: 12:02 LOGGED BY: M. Conlon, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'10" NORTHING/EASTING: 718260.61, 633716.51 DEPTH TO TOP OF SEDIMENT: 4.5	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
29	29'5"-29'6": 10 - pinhole diameter responses 29'6"-29'7.5": No response 29'7.5"-29'9.5": pinhole-0.125" diameter responses, 25-30 per inch 29'9.5"-29'10": No response	29'5"-29'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20-25 per inch		29'4"-29'10": 90 - 100% at 29'8": 1 - 1" diameter response	29' 3"-29' 10": dark gray, firm, moist silt, trace clay 29' 4"-29' 6": woven material/textile	29'0": 23.2 ppm 29'6": 54.3 ppm		

A-23A

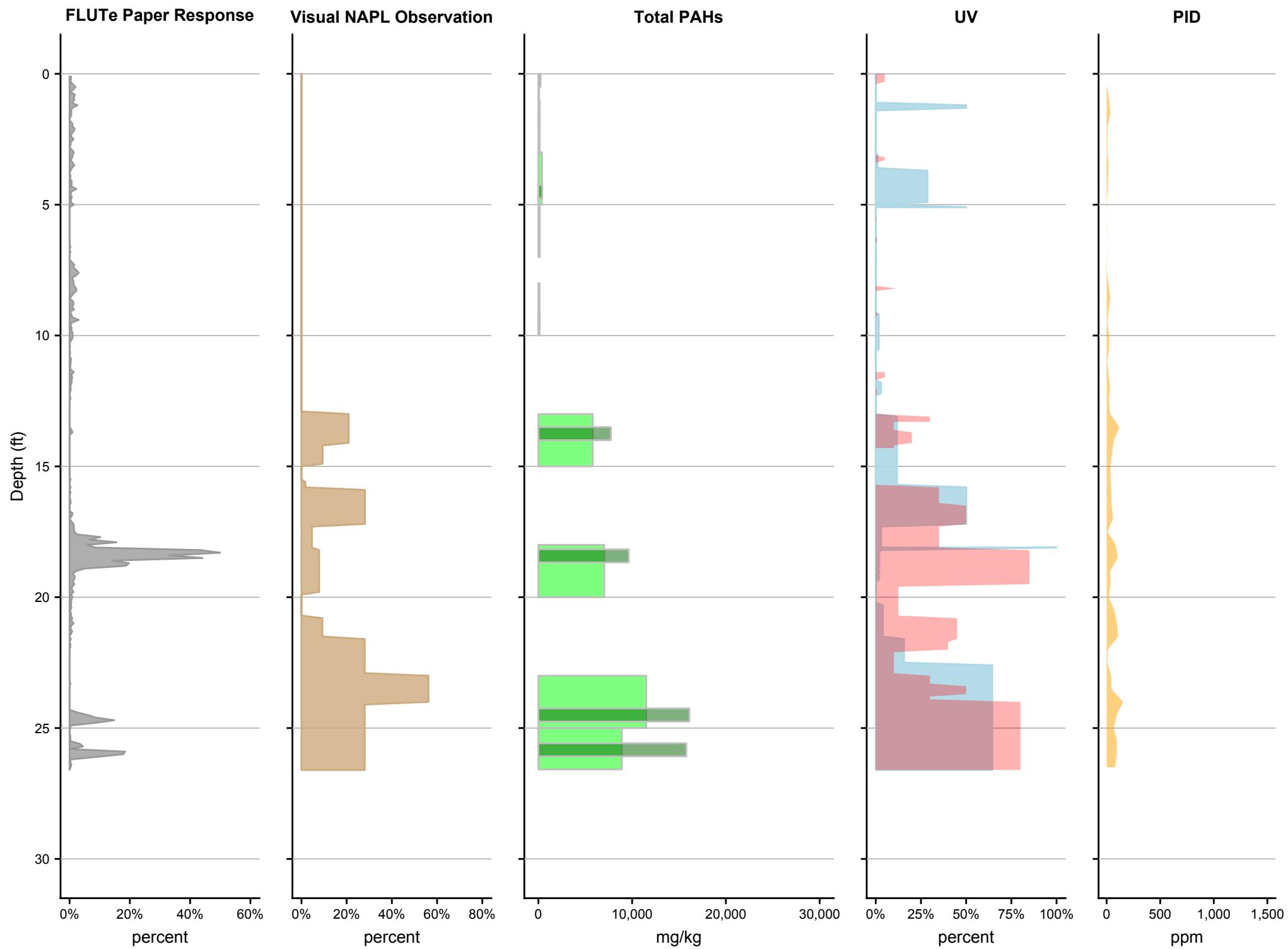


LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		A-23a 1/23/2018 10:20 D. Burge Alpine	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 22'9" 718382.13, 633855.32	Comments:			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-16'2": No response	0'0"-4'9": light staining without sheen	0'0"-1'11": No response	0'0"-17'2": No response	0' 0"-0' 5": brown gray, soft, wet silt 0' 5"-0' 6.5": dark gray, soft, wet silt 0' 6.5"-1' 2.5": dark gray brown, soft, wet silt at 0' 8": 1" diameter shell	0'6": 0 ppm		
1			at 1'11": 1 - pinhole diameter response 1'11"-2'0": No response		1' 2.5"-1' 3.5": dark gray, soft, wet silt 1' 3.5"-1' 10": dark brown gray, soft, wet silt 1' 10"-3' 7": dark brown gray, medium soft, wet silt	1'0": 0.3 ppm 1'6": 0.2 ppm		
2			at 2'0": 1 - pinhole diameter response 2'0"-2'3": No response at 2'3": 3 - 0.25" responses 2'3"-2'4": No response 2'4"-2'6": No response at 2'4": 3 - pinhole diameter responses 2'6"-2'10": pinhole diameter responses, 2 per inch 2'10"-3'0": No response			2'0": 0.3 ppm 2'6": 0.2 ppm		
3			at 3'0": 5 - pinhole diameter responses 3'0"-3'3": No response 3'3"-3'5": 7 - pinhole-0.25" diameter responses 3'5"-3'6": No response at 3'6": 1 - pinhole diameter response 3'6"-3'7": No response 3'7"-3'9.5": 20 - pinhole-0.25" diameter responses 3'9.5"-3'11": No response 3'11"-4'2": pinhole diameter responses, 4 per inch		3' 7"-4' 2": dark gray olive, medium soft, wet silt	3'0": 0.3 ppm 3'6": 0.1 ppm		
4		4'9"-4'10.5": stained without sheen 4'10.5"-5'8": stained with sheen	4'2"-4'3": No response 4'3"-4'4": 15 - pinhole-0.25" diameter responses 4'4"-4'6": No response 4'6"-4'9": pinhole diameter responses, 5 per inch 4'9"-5'2": No response		4' 2"-5' 8": dark gray, medium soft, wet silt	4'0": 0.4 ppm 4'6": 0.3 ppm		
5		5'8"-5'10": stained without sheen 5'10"-9'9": stained with limited sheen throughout	5'2"-5'3": 7 - 0.125" responses 5'2"-5'3": 1 - 0.25" response 5'3"-6'5": 0.125" responses, 2 per inch		5' 8"-5' 10": dark gray brown, medium soft, wet silt 5'10"-12' 2": dark gray, medium soft, wet silt	5'0": 0.3 ppm 5'6": 1845 ppm		
6			6'5"-6'7": 4 - 0.125" responses 6'5"-6'7": 20 - pinhole diameter responses 6'7"-6'9": No response 6'9"-7'11": pinhole-0.25" diameter responses, 5 per inch			6'0": 15000 ppm 6'6": 15000 ppm		
7			7'11"-8'3": 25 - pinhole-0.25" diameter responses			7'0": 15000 ppm 7'6": 15000 ppm		

LOCATION: A-23a DATE: 1/23/2018 TIME: 10:20 LOGGED BY: D. Burge DRILLING COMPANY: Alpine			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 22'9" NORTHING/EASTING: 718382.13, 633855.32 DEPTH TO TOP OF SEDIMENT:	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
8			8'3"-8'10": 0.25" responses, 5 per inch at 8'10": 1 - 0.125" x 0.25" response, 4 - 0.25" responses 8'10"-9'1": No response			8'0": 319 ppm 8'6": 385 ppm		
9		9'9"-9'10": none 9'10"-10'0": stained with sheen	9'1"-9'9": 0.125" x 0.25" responses, scattered, 15 per inch 9'9"-9'10": 1 - 0.125" x 0.25" response 9'10"-9'11": No response 9'11"-10'9": pinhole diameter responses, 10 per inch			9'0": 582 ppm 9'6": 15000 ppm		
10		10'0"-12'0": stained with light sheen	at 10'3": 3 - 0.125" x 0.25" responses 10'9"-11'9": pinhole diameter responses, 5 per inch at 10'9": 5 - pinhole diameter responses at 10'9": 1 - 0.5" x 0.25" response			10'0": 15000 ppm 10'6": 0 ppm		
11			11'9"-11'11": No response at 11'11": 3 - pinhole diameter responses 11'11"-12'0": No response			11'0": 0.7 ppm 11'6": 4.5 ppm		
12		12'0"-12'2": stained with heavy sheen 12'2"-14'9": stained with light sheen at 12'11": stained with sheen, 1 - NAPL droplet alongside shell	12'0"-12'2": 1 - 1.00" response 12'0"-12'2": 10 - 0.25" responses at 12'2": small plastic film 12'2"-12'9": pinhole-0.25" diameter responses, 15 per inch 12'9"-12'10": No response 12'10"-13'7": pinhole-0.125" diameter responses, 20 per inch at 12'10": 1 - 0.5" response	12' 2"-14' 9": dark olive gray, medium soft, wet silt at 12' 11": 0.25" diameter shell		12'0": 315 ppm 12'6": 23.5 ppm		
13			13'7"-13'8": 50% pinholes 13'8"-14'9": 0.125" x 0.25" responses, 15 per inch			13'0": 31.2 ppm 13'6": 4 ppm		
14		14'9"-16'3": stained without sheen	at 14'2": 1 - 0.125" thick layer 14'9"-14'9.5": No response at 14'9.5": 2 - 0.25" response 14'9.5"-14'11": No response 14'11"-15'5.5": pinhole diameter responses, 5 per inch	14' 1.5"-14' 3": fibrous material 14' 9"-20' 10": dark gray, medium soft, moist silt		14'0": 7 ppm 14'6": 3.9 ppm		
15			15'5"-15'6": 1 - 0.5" x 0.75" nodule 15'6"-15'11": pinhole diameter responses, 5 per inch at 15'11": 5 - 0.25" responses 15'11"-16'3": pinhole diameter responses, 10 per inch	at 15' 11": shell fragment		15'0": 21.7 ppm 15'6": 5.7 ppm		

LOCATION: A-23a DATE: 1/23/2018 TIME: 10:20 LOGGED BY: D. Burge DRILLING COMPANY: Alpine			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 22'9" NORTHING/EASTING: 718382.13, 633855.32 DEPTH TO TOP OF SEDIMENT:	Comments:	RAMBOLL				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper	
16	16'2"-17'5": No response at 16'2": 1 - 0.25" stain	16'3"-19'9": stained with sheen at 16'7": stained with sheen, 1 - 0.25" diameter NAPL droplet 16'8"-17'6": stained with sheen, pinhole diameter NAPL droplets, 3 per inch	16'3"-16'4": 9 - 0.25" responses 16'4"-16'8.5": 0.25" diameter responses, 10 per inch 16'8.5"-17'2": 5 - 0.50" responses, pinhole diameter responses, 10 per inch				16'0": 15.1 ppm 16'6": 10.9 ppm		
17	at 17'5": 1 - 0.25" response 17'5"-22'9": No response	17'6"-17'10.5": stained with sheen, pinhole-0.25" diameter NAPL droplets 17'10.5"-18'5": stained with sheen, 0.25" NAPL droplets, 20 per inch	17'2"-17'9": pinhole diameter responses, 5 per inch, 0.25" diameter responses, 5 per inch 17'9"-18'6": pinhole diameter responses, 15 per inch	17'2"-17'9": 0.25" responses, 5 per inch 17'9"-18'6": No response			17'0": 10.9 ppm 17'6": 10.4 ppm		
18		18'10"-19'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch	18'6"-18'10": No response 18'10"-19'5": 0.25" responses, 5 per inch	18'6"-18'10": 0.25" thick non-continuous bands, 5 per inch 18'10"-19'5": No response	at 18' 0": trace fibrous material at 18' 8": 1" diameter rock		18'0": 15.8 ppm 18'6": 11.6 ppm		
19		19'4"-19'6": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10 per inch 19'6"-19'9": stained with sheen, pinhole-0.25" diameter NAPL droplets, 20 per inch 19'9"-20'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 30 per inch	19'5"-19'9": No response 19'9"-20'9": pinhole diameter responses, 25 per inch	19'5"-19'9": pinhole diameter responses, 10 per inch 19'5"-19'9": 0.5" responses, 5 per inch 19'9"-20'9": 20% coverage, 0.25" - 0.5" noncontinuous layers			19'0": 22.6 ppm 19'6": 17.7 ppm		
20		20'0"-20'10": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15 per inch 20'10"-22'9": None	20'9"-21'0": pinhole-0.25" diameter responses, 25 per inch	20'9"-20'11": No response 20'11"-21' 0": 1 - 0.5" x 0.75" discontinuous layer	at 20' 8": white shell fragment 20' 10"-21' 0": greenish gray, medium soft, wet/moist silt, 25% is dark gray, then greenish gray		20'0": 39.4 ppm 20'6": 6.1 ppm		
21			21'0"-21'2": No response 21'2"-21'9.5": No response at 21'2": 1 - 0.125" x 1" response 21'9.5"-22'2": No response at 21'9.5": 2 - pinhole diameter responses	21'0"-22'9": No response	21' 0"-22' 9": greenish gray, medium soft, wet/moist silt at 21' 2": non-continuous layer of white shell fragments and whole shells (0.5" diameter) at 21' 4.5": 1" layer of 0.25" diameter whole white shells		21'0": 21.3 ppm 21'6": 24.5 ppm		
22			22'2"-22'9": No response at 22'2": 1 - 0.125" x 0.25" response				22'0": 6 ppm 22'6": 2.9 ppm		
23							23'0": 5.1 ppm		

AA0-2

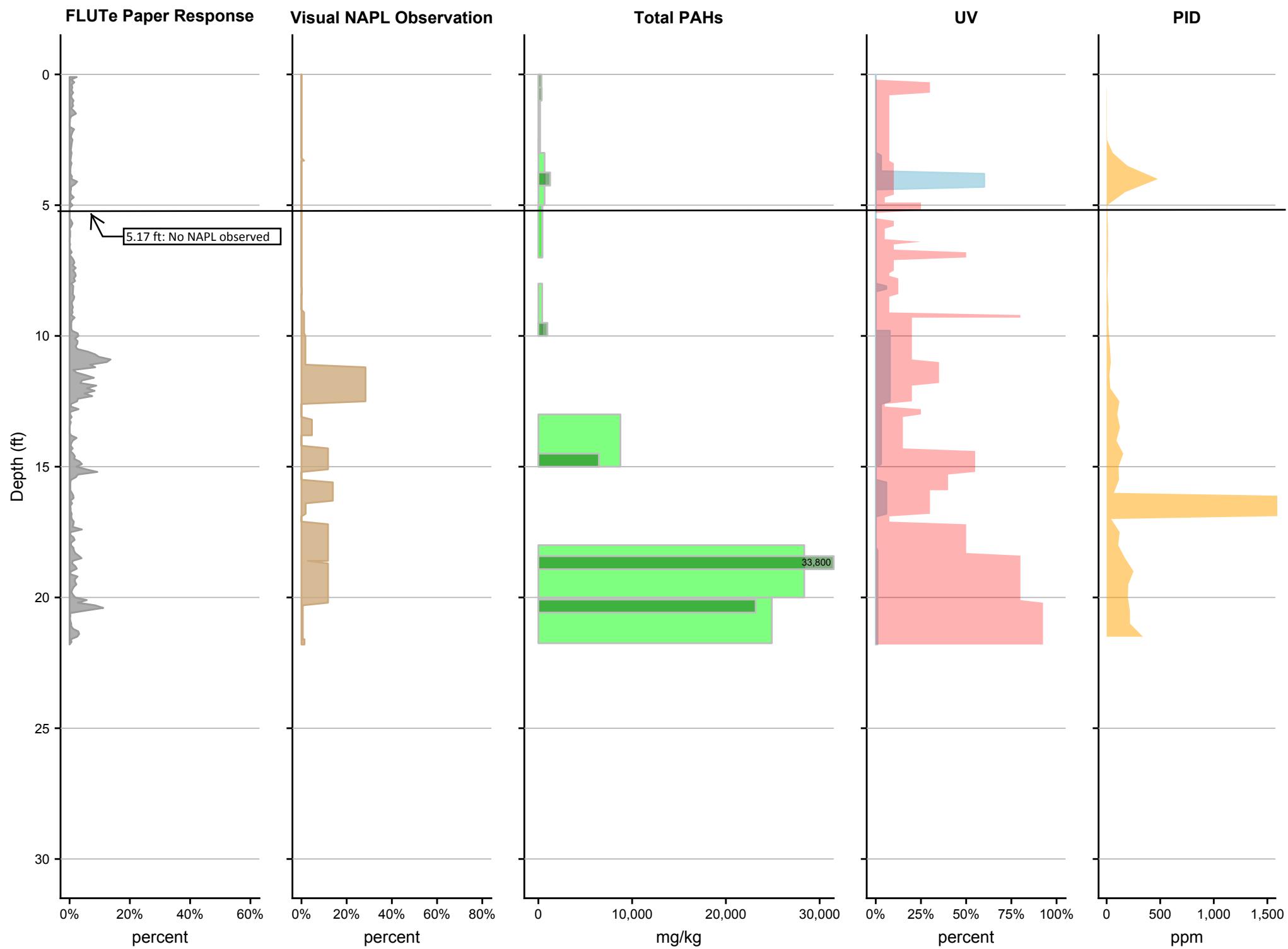


LOCATION: AA0-2 DATE: 2/21/2018 TIME: 12:40:00 PM LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718459.81, 633707.77 DEPTH TO TOP OF SEDIMENT: 3.1	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-9'6": No response	0'0"-1'7": stained without sheen	0'0"-1'3": 1 - 0.5" trace fibrous material 0'0"-1'3": pinhole- responses, 2-5 per inch	0'0"-0'4": 5% coverage 0'4"-3'3": No response	0' 0"-1' 7": olive gray to dark gray, very soft, wet silt with trace clay	0'6": 5.7 ppm		
1		1'7"-4'2": stained with light sheen	1'3"-1'4": 5 - pinhole responses 1'3"-1'4": 1 - 0.5" diameter response 1'4"-3'1": pinhole responses, 5-10 per inch 1'4"-3'1": 1 - 0.25" trace fibrous material		at 1' 3": shell (1") 1' 7"-4' 2": dark gray, very soft, wet silt with trace clay, trace fibrous material	1'0": 22.4 ppm 1'6": 35.3 ppm		
2						2'0": 10.5 ppm 2'6": 7.3 ppm		
3			3'1"-3'8": pinhole-0.125" responses, 5 per inch 3'8"-4'11": pinhole-0.25" responses, 30-40 per inch	3'3"-3'4": 5% coverage 3'4"-5'6": No response		3'0": 8.2 ppm 3'6": 19.2 ppm		
4		4'2"-4'11": stained with heavy sheen 4'11"-5'0": stained with light sheen	at 4'11": 1-0.125"-thick band response 4'11"-6'7": 1 - 0.25"-long fibrous material, pinhole responses, 5-10 per inch		4' 2"-4' 11": dark gray, very soft, wet silt with trace clay 4' 11"-5' 0": dark gray to black, very soft, wet silt, fibrous material	4'0": 14.1 ppm 4'6": 9.3 ppm		
5		5'0"-5'4": stained without sheen 5'4"-6'8": stained with light sheen	at 5'1": 1 - 0.5"-thick band	at 5'6": 1 - 0.125"-diameter response 5'6"-6'4": No response at 6'4": 2 - 0.125"-diameter response	5' 0"-5' 4": olive gray, very soft, wet silt, fibrous material 5' 4"-6' 8": dark gray, soft, wet silt, fibrous material	5'0": 1.4 ppm 5'6": 0.6 ppm		
6		6'8"-7'2": stained with light sheen	6'7"-7'2": pinhole responses, 15-20 per inch	6'4"-6'5": 2 - 0.125"-diameter responses 6'5"-8'2": 0 - diameter responses	6' 8"-7' 2": olive gray, soft, wet silt, fibrous material	6'0": 1.8 ppm 6'6": 0.7 ppm		
7		7'2"-8'7": stained with light sheen	at 7'1": 1 - 0.125"-long fibrous material 7'2"-7'10": pinhole responses, 5-10 per inch 7'10"-8'7": pinhole responses, 5 per inch 7'10"-8'7": 1- 0.5" fibrous material		7' 2"-8' 7": dark gray, medium soft, moist silt, trace clay	7'0": 1.6 ppm 7'6": 2.9 ppm		
8		8'7"-9'6": stained with light sheen	8'7"-9'3": pinhole responses, 10 per inch 8'7"-9'3": 0.25" trace fibrous material	8'2"-8'2.5": 1 - 0.5"-diameter response 8'2.5"-9'2": 0 - diameter responses	8' 7"-9' 6": olive gray, medium soft, moist silt, trace clay	8'0": 16.2 ppm 8'6": 34.8 ppm		
9	9'6"-9'7": 3 pinhole responses 9'7"-11'6": No response	9'6"-9'8": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 9'8"-10'10": stained with sheen, pinhole diameter NAPL droplets	9'3"-10'6": pinhole responses, 5 per inch 9'3"-10'6": 0.25" trace fibrous material, 5-10 per inch	9'2"-9'3": 1 - 0.25"-diameter response 9'3"-11'5": 0 - diameter responses	9' 6"-9' 8": dark gray, medium soft, moist silt, trace clay 9' 8"-10' 10": olive gray, medium soft, moist silt, trace clay	9'0": 20.4 ppm 9'6": 7.8 ppm		
10		10'10"-12'2": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	10'6"-11'10": pinhole responses, 5 per inch 10'6"-11'10": 0.5" trace fibrous material		10' 10"-12' 2": dark gray, medium soft, moist silt, trace clay	10'0": 23.5 ppm 10'6": 22 ppm		

Location: AA0-2 Date: 2/21/2018 Time: 12:40:00 PM Logged By: M. Conlon, A. Papalian Drilling Company: OSI			Sampling Method: Vibracore Core Diameter: 4" Core Depth (Recovery): 26'7" Northing/Easting: 718459.81, 633707.77 Depth To Top Of Sediment: 3.1	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11	at 11'6": 1 pinhole response 11'6"-12'2": No response		11'10"-12'2": pinhole-0.125" responses, 10-15 per inch	11'5"-11'7": 5% 11'7"-12'1": 0 - diameter responses		11'0": 6.9 ppm 11'6": 18.5 ppm		
12	12'2"-13'0": No response	12'2"-12'7": stained with light sheen 12'7"-13'0": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	12'2"-13'1": pinhole responses, 20-30 per inch 12'2"-13'1": 0.125"-long fibrous material	12'1"-12'2": 2 - 0.125"diameter responses 12'2"-13'1": No response	12' 2"-14' 7": dark gray, medium soft, moist silty clay, fibrous material	12'0": 31.9 ppm 12'6": 20.8 ppm		
13	13'0"-13'4": pinhole responses, 5-10 per inch 13'4"-13'7": No response 13'7"-13'8": pinhole-0.125" diameter responses, 20-30 per inch 13'8"-16'0": No response	13'0"-14'1": stained with sheen, pinhole-1.00" diameter NAPL droplets, 10-15 per inch	13'1"-15'9": 1 - pinhole-0.125" diameter response, 50-60 per inch 13'1"-15'9": 0.25"-long fibrous material	13'1"-13'4": 30% coverage 13'4"-13'8": 10% 13'8"-14'1": 20%	at 13' 5": one 1/8" diameter by 3.5" long root matter	13'0": 33.8 ppm 13'6": 120.3 ppm		
14		14'1"-14'11": stained with sheen, pinhole diameter NAPL droplets, 20-30 per inch 14'1"-14'11": stained with sheen, 0.125-0.50" diameter NAPL droplets, 5-10 per inch 14'11"-15'7": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch		14'1"-14'4": 10% coverage 14'4"-15'10": No response	14' 7"-14' 11": dark gray, medium soft, moist silt, fibrous material 14' 11"-17' 2": dark olive gray, medium soft, moist silt, fibrous material	14'0": 67.4 ppm 14'6": 50.6 ppm		
15		15'7"-15'11": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch 15'11"-17'2": stained with sheen, pinhole diameter NAPL droplets, 30-40 per inch 15'11"-17'2": stained with sheen, 0.125-1.00" diameter NAPL droplets, 15-20 per inch	15'9"-17'2": 1 - pinhole-0.25" diameter response, 60-70 per inch 15'9"-17'2": 0.25"-long fibrous material	15'10"-16'6": 30-40% coverage		15'0": 34.6 ppm 15'6": 36.8 ppm		
16	16'0"-16'7": pinhole responses, 30-40 per inch 16'7"-16'11": pinhole-0.125" diameter responses, 40-50 per inch 16'11"-17'2": pinhole-0.25" diameter responses, 40-50 per inch			16'6"-17'2": 50% coverage		16'0": 42.7 ppm 16'6": 47.3 ppm		
17	17'2"-17'3": No response 17'3"-17'4": 4 pinhole responses 17'4"-17'6": No response at 17'6": 2 pinhole responses 17'6"-17'7": No response at 17'7": 3 pinhole responses 17'7"-17'8": No response 17'8"-17'9": 15 pinhole responses 17'9"-18'2.5": pinholes-0.25" diameter responses, 15-20 per inch	17'2"-18'2": stained with sheen, pinhole-0.50" diameter NAPL droplets, 2-5 per inch	17'2"-18'3": pinhole-0.125" responses, 10-15 per inch	17'2"-18'3": 30-40% coverage	17' 2"-19' 10": very dark gray, medium soft, moist silt, trace clay	17'0": 60.3 ppm 17'6": 8.9 ppm		
18	18'2.5"-18'4": 20 pinhole-0.5" diameter responses 18'2.5"-18'4": 1-1" by 1.5" response 18'4"-18'7.5": pinhole-0.25" diameter responses, 5-10 per inch 18'7.5"-18'9.5": pinhole-0.5" diameter responses, 10-15 per inch 18'9.5"-19'0": No response	18'2"-19'10": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5-10 per inch	at 18'1": 1 -1.5"-long partial layer at 18'1": 1 - 0.25" trace fibrous material 18'3"-19'4": pinhole-0.125" diameter response, 10 per inch 18'3"-19'4": 0.25" trace fibrous material 18'4"-20'0": pinhole responses, 20-30 per inch 18'4"-20'0": 0.5" fibrous material	18'3"-19'6": 80-90% coverage		18'0": 85.3 ppm 18'6": 104.2 ppm		
19	19'0"-19'2": 6 pinhole responses 19'2"-19'4": 5 pinhole responses 19'4"-19'6": No response at 19'6": 1 pinhole response 19'6"-19'7": No response at 19'7": 2 pinhole responses 19'7"-21'7": No response	19'10"-20'9": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch		19'6"-20'10": 10-15% coverage	19' 10"-20' 9": olive gray, medium soft, moist silt, trace clay	19'0": 33.3 ppm 19'6": 36.1 ppm		
20		20'9"-21'7": stained with sheen, pinhole-0.50" diameter NAPL droplets, 5-10 per inch	20'0"-20'4": pinhole responses, 5 per inch 20'4"-21'7": pinhole-0.125" responses, 20 per inch	20'10"-21'7": 40-50% coverage	20' 9"-21' 7": very dark gray, medium soft, moist silt, trace clay	20'0": 21.1 ppm 20'6": 72.9 ppm		
21	21'7"-23'3": No response	21'7"-23'0": stained with sheen, 0.125-1" diameter NAPL droplets, 10-20 per inch 21'7"-23'0": stained with sheen, pinhole-1" diameter NAPL droplets, 30-40 per inch	21'7"-22'7": 1 - pinhole-0.125" diameter response, 70-80 per inch 0.125"-long fibrous material	21'7"-22'0": 40%	21' 7"-26' 7": dark gray, black, medium soft, moist silt, trace clay, fibrous material	21'0": 96.7 ppm 21'6": 106.9 ppm		

LOCATION: AA0-2 DATE: 2/21/2018 TIME: 12:40:00 PM LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718459.81, 633707.77 DEPTH TO TOP OF SEDIMENT: 3.1	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22			22'7"-26'7": 1 - pinhole-0.25" diameter response, 80-90 per inch 0.25"-long fibrous material	22'0"-23'0": 10%		22'0": 10.5 ppm 22'6": 8.7 ppm		
23	at 23'3": 1 pinhole response 23'3"-24'2": No response	23'0"-24'0": stained with sheen, 0.125-1.00" diameter NAPL droplets, 30-40 per inch		23'0"-23'5": 30% 23'5"-23'8": 50% 23'8"-24'0": 30%		23'0": 42.5 ppm 23'6": 44.1 ppm		
24	24'2"-24'4": pinhole responses, 5 per inch 24'4"-24'5": pinhole-0.125" diameter responses, 10 per inch 24'5"-24'6": No response 24'6"-24'9": 30% coverage 24'6"-24'9": 0.5" by 0.125" response 24'9"-25'0": pinhole responses, 5-10 per inch	24'0"-26'7": stained with sheen, 0.125-1.00" diameter NAPL droplets, 10-20 per inch		24'0"-26'7": 80%		24'0": 154.6 ppm 24'6": 93.6 ppm		
25	25'0"-25'2": No response 25'2"-25'4": pinhole responses, 5 per inch 25'4"-25'6": No response 25'6"-25'8": pinhole-0.25" diameter responses, 5 per inch 25'8"-25'10": No response 25'10"-26'2": 20% coverage 25'10"-26'2": 1 1" response					25'0": 67.4 ppm 25'6": 95.5 ppm		
26	26'2"-26'3": No response 26'3"-26'6": pinhole responses, 5 per inch 26'6"-26'7": No response					26'0": 94 ppm 26'6": 79.4 ppm		

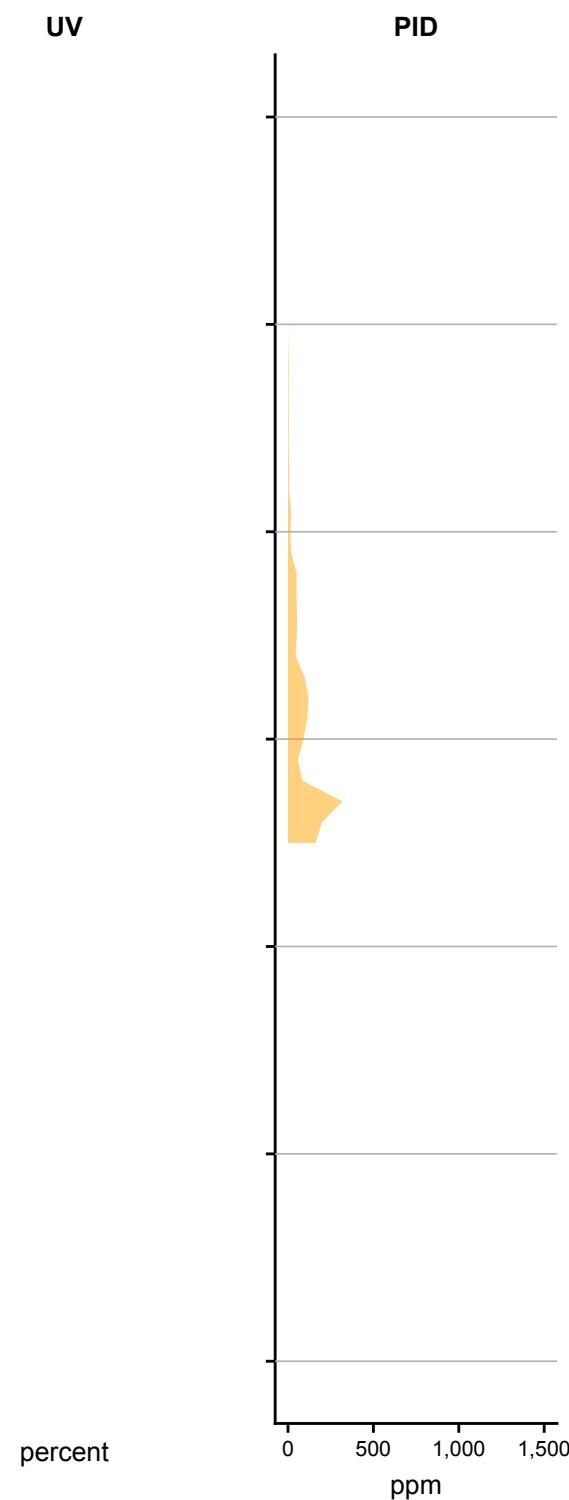
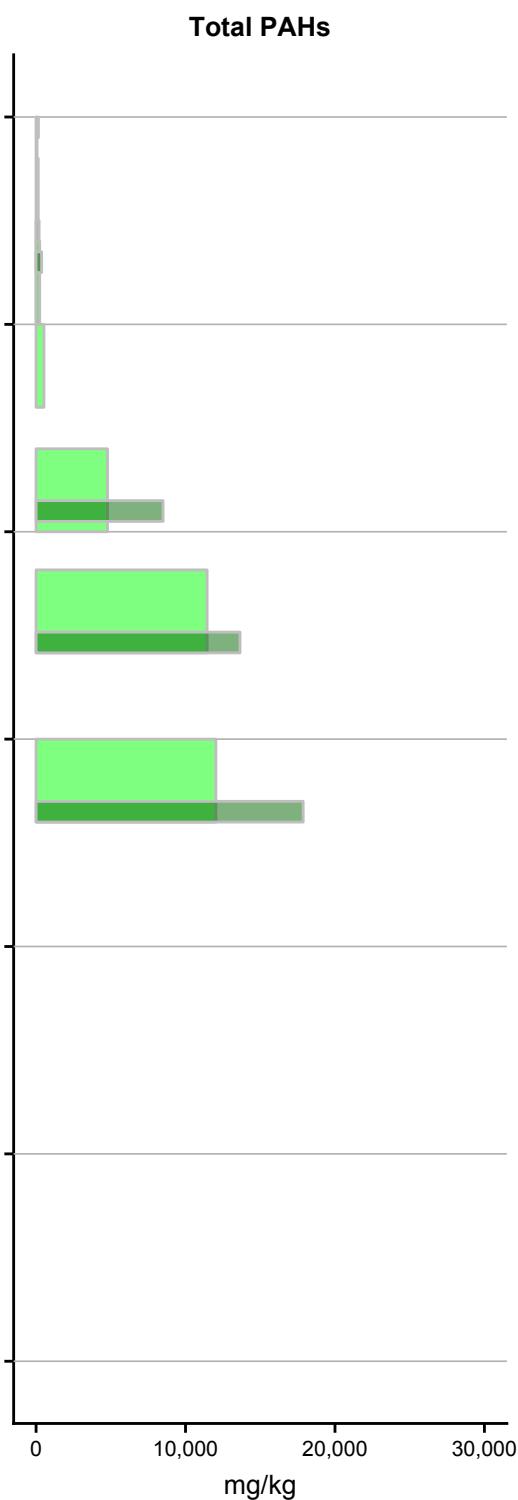
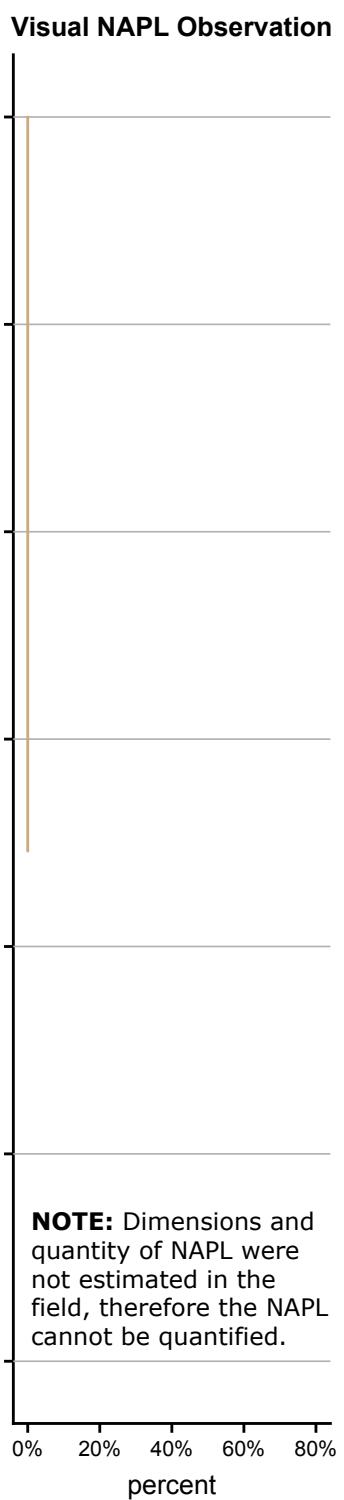
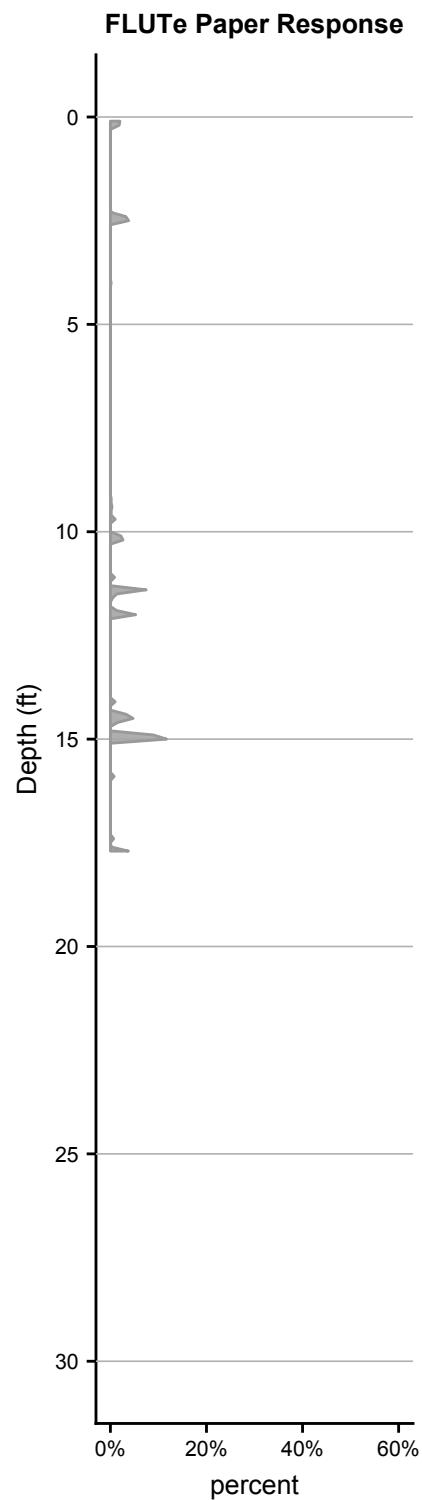
AA1-1



FLUTe Paper Reactions			Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
Depth									
0	0'0"-3'11.5": No response		0'0"-0'11": stained with light sheen 0'0"-0'2": stained with light sheen, 1 - pinhole diameter NAPL droplet 0'11"-4'11": stained with sheen	0'0"-3'1": trace fiber material up to 0.25" 0'0"-0'10": pinhole diameter responses, 2-5 per inch 0'10"-3'1": pinhole diameter responses, 5-10 per inch	0'0"-0'4": No response 0'4"-0'8": 30% 0'8"-3'5": 5-10%	0' 0"-0' 11": dark gray, very soft, wet silt 0' 11"-4' 11": dark gray, soft, wet silt	0'6": 1 ppm		
1									1'0": 2.9 ppm 1'6": 3.4 ppm
2									2'0": 2.6 ppm 2'6": 4.5 ppm
3	3'11.5"-4'3": 10 - pinhole-0.125" diameter responses		3'4"-4'11": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch	3'1"-3'9": pinhole-0.125" diameter responses, 10-15 per inch 3'9"-4'4": 60%	3'5"-3'9": 10% 3'9"-4'5": 10%				3'0": 56.9 ppm 3'6": 196.6 ppm
4	4'3"-10'4.75": No response		4'11"-5'6": stained without sheen	4'4"-4'11": pinhole diameter responses, 5-10 per inch 4'4"-4'11": trace fiber material up to 0.25" 4'11"-7'6": fibrous material up to 0.5" in length 4'11"-8'1": pinhole diameter responses, 15-20 per inch	4'5"-4'7": 10% 4'7"-4'11": 5% 4'11"-5'3": 25%	4' 11"-5' 4": dark gray to black, very soft, wet silt, fibrous material	4'0": 479 ppm 4'6": 173.9 ppm		
5			5'6"-7'6": stained with sheen		5'3"-5'7": No response 5'7"-5'10": 10% 5'10"-6'5": 5%	5' 4"-6' 0": dark gray, very soft, wet silt, fibrous material	5'0": 6.3 ppm 5'6": 8.8 ppm		
6					at 6'5": 1 - 0.25" band 6'5"-6'10": 10% 6'10"-7'0": 50%	6' 0"-7' 6": dark olive gray, very soft, wet silt, fibrous material	6'0": 13.5 ppm 6'6": 12.6 ppm		
7	7'6"-7'9": stained without sheen 7'9"-8'3": stained with sheen			7'6"-8'1": fibrous material up to 0.25" in length	7'0"-7'6": 10% 7'6"-7'10": 5-10% 7'10"-8'5": 10-15%	7' 6"-7' 9": olive gray, soft, wet silt, trace fibrous material 7' 9"-8' 5": dark gray, soft, wet silt, trace yellow/green/gray coloring, fibrous material	7'0": 13.9 ppm 7'6": 11 ppm		
8	8'3"-8'5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 8'5"-9'1": stained with sheen			8'1"-8'2": pinhole-0.125" diameter responses, 20-30 per inch 8'2"-9'9": pinhole diameter responses, 10-15 per inch 8'2"-9'9": fibrous material up to 0.5" in length	8'5"-9'2": 5-10%	8' 5"-9' 1": dark olive gray, soft, wet silt, trace yellow/green/gray coloring, fibrous material	8'0": 7.3 ppm 8'6": 11.5 ppm		
9	9'1"-10'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch			9'9"-12'6": pinhole-0.125" diameter responses, 30-40 per inch 9'9"-12'6": fibrous material up to 0.25" in length	9'2"-9'4": 80% 9'4"-11'0": 20%	9' 1"-12' 6": dark gray, soft, wet silt, trace yellow/green/gray coloring, fibrous material at 9' 6": trace root matter with fibrous material	9'0": 17.6 ppm 9'6": 14.7 ppm		
10	at 10'4.75": 1 - 0.125" diameter response 10'4.75"-12'9.5": No response		10'0"-11'3": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch						10'0": 23.4 ppm 10'6": 32.1 ppm
11			11'3"-12'6": stained with sheen, up to 1" x 0.125" diameter NAPL droplets, 20-30 per inch (20%)		11'0"-11'10": 30-40% 11'10"-12'6": 20%				11'0": 39.3 ppm 11'6": 26.4 ppm
12	at 12'9.5": 1 pinhole diameter response 12'9.5"-14'5": No response		12'6"-13'3": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	12'6"-14'11": pinhole-0.125" diameter responses, 10-15 per inch 12'6"-14'11": fibrous material up to 0.125" in length	12'6"-12'10": 5% 12'10"-13'0": 25%, 2" x 0.5" response	12' 6"-16' 9": very dark gray, medium soft, moist silt, trace clay	12'0": 34.4 ppm 12'6": 119.6 ppm		
13	13'3"-13'10": stained with sheen, pinhole-0.50" diameter NAPL droplets, 5 per inch 13'10"-14'4": stained with sheen				13'0"-14'5": 15%				13'0": 99.4 ppm 13'6": 124.9 ppm
14	14'5"-15'0": pinhole-0.125" diameter responses, 5-10 per inch		14'4"-15'1": stained with sheen, pinhole-0.75" diameter NAPL droplets, 10-15 per inch	14'11"-15'7": fibrous material 14'11"-15'7": pinhole diameter responses, 20 per inch	14'5"-15'3": 50-60%				14'0": 91.4 ppm 14'6": 155.4 ppm

LOCATION: AA1-1 DATE: 2/20/2018 TIME: 12:40 LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 21'9" NORTHING/EASTING: 718409.45, 633661.41 DEPTH TO TOP OF SEDIMENT: 3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
15	15'0"-15'3": pinhole-0.25" diameter responses, 15 per inch 15'3"-15'6": 3 pinhole diameter responses 15'6"-17'4": No response	15'1"-15'7": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 15'7"-16'4": stained with sheen, pinhole-0.50" diameter NAPL droplets, 10-15 per inch	15'7"-16'9": pinhole-0.125" diameter responses, 30 per inch	15'3"-15'11": 40% 15'11"-16'9": 30%		15'0": 111.4 ppm 15'6": 115.9 ppm		
16		16'4"-16'9": stained with sheen, pinhole-0.50" diameter NAPL droplets, 2 per inch 16'9"-17'2": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	16'9"-17'2": fibrous material up to 0.25" in length 16'9"-17'2": pinhole diameter responses, 15-20 per inch	16'9"-17'2": 5-10%	16' 9"-21' 9": dark gray, medium soft, moist silt, trace clay, trace fibers	16'0": 67.9 ppm 16'6": 7117 ppm		
17	at 17'4": 1 pinhole diameter response 17'4"-17'9": No response 17'9"-17'10": 4 pinhole diameter responses 17'10"-18'1.5": No response	17'2"-20'3": stained with sheen, pinhole-0.75" diameter NAPL droplets, 10-15 per inch	17'2"-18'1": pinhole diameter responses, 10-15 per inch	17'2"-18'5": 50% at 17'2": 2 - 0.125" x 0.5" responses		17'0": 42.4 ppm 17'6": 122 ppm		
18	18'1.5"-18'3.5": 2 pinhole diameter responses 18'3.5"-19'10.5": No response at 18'3.5": 1 pinhole diameter response	18'7"-18'8": stained with sheen, 1 - 1.00" diameter oozing/pooling NAPL droplet	18'1"-18'3": pinhole diameter responses, 15-20 per inch, trace fibrous material 18'3"-21'9": pinhole-0.125" diameter responses, 2-5 per inch	18'5"-20'3": 80%		18'0": 108.3 ppm 18'6": 172.1 ppm		
19	19'10.5"-20'0": 20 pinhole diameter responses					19'0": 251.2 ppm 19'6": 202.6 ppm		
20	20'0"-20'2": No response 20'2"-20'4": 10 pinhole diameter responses 20'4"-20'6": pinhole-0.25" diameter responses, 10-15 per inch 20'6"-21'3": No response	20'3"-21'7": stained with heavy sheen, pinhole-0.25" diameter NAPL droplets, 2-5 per inch		20'3"-21'9": 90-95%		20'0": 198.6 ppm 20'6": 217 ppm		
21	21'3"-21'6": pinhole-0.125" diameter responses, 5 per inch 21'6"-21'8": No response at 21'8": 1 pinhole diameter response 21'8"-21'9": No response	21'7"-21'9": stained with sheen, 1 - 1.5" x 0.5" diameter gray brown pocket				21'0": 218.5 ppm 21'6": 339.6 ppm		

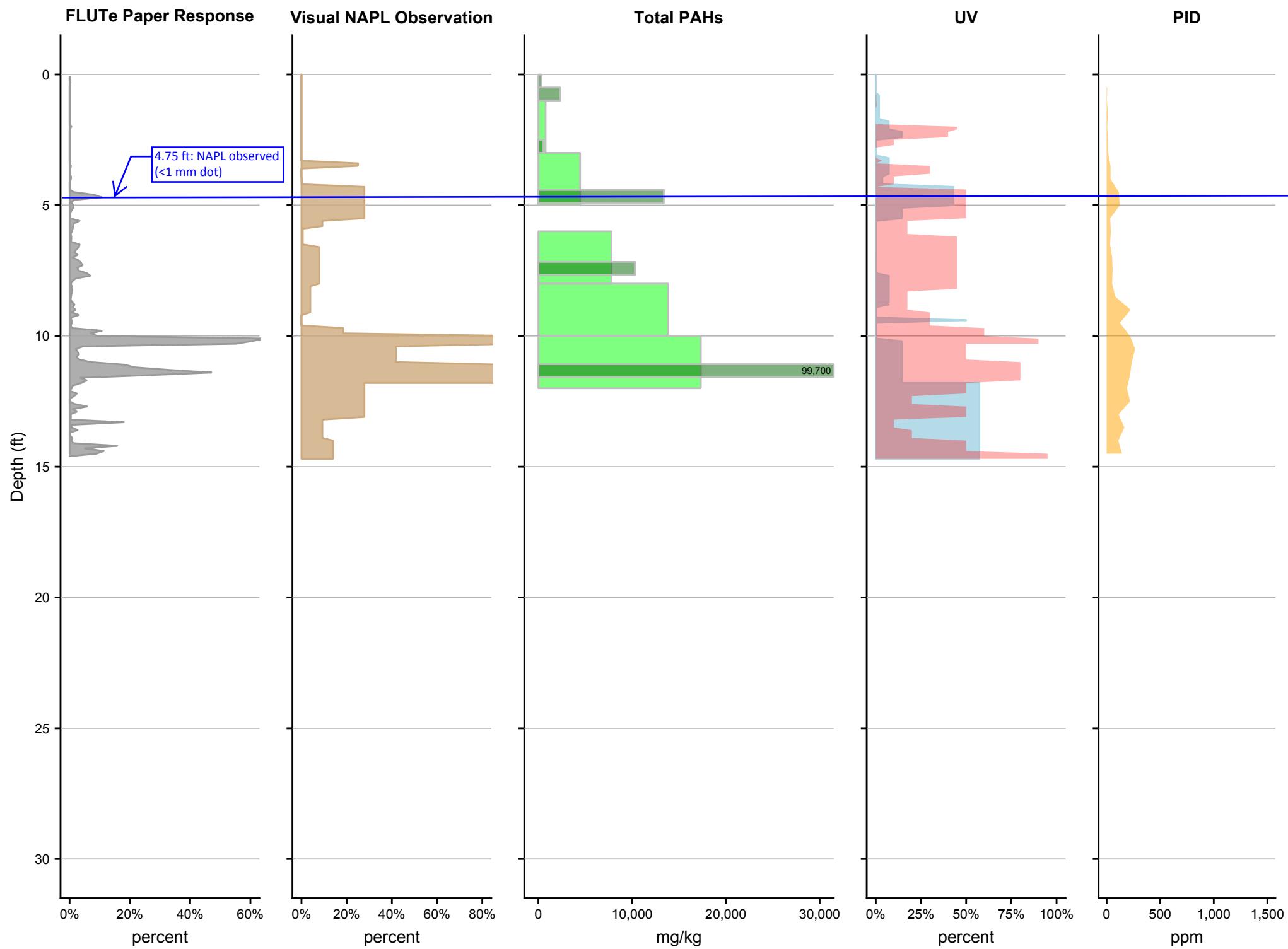
AA1-2

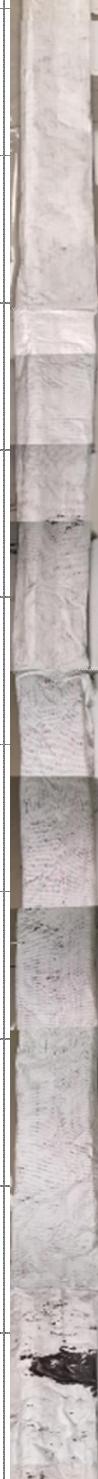
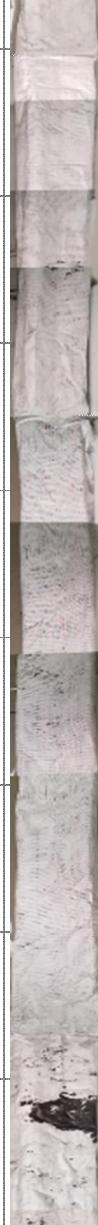
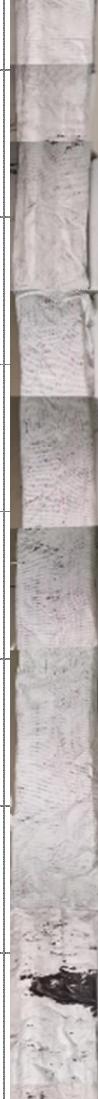
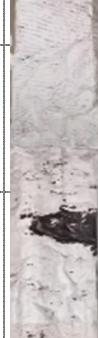


LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		AA1-2 1/22/2018 12:50 J. Sananes Alpine	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 17'8" 718451.86, 633716.24	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper	
0	0'0"-10'11.5": No response	0'0"-1'11": None			0' 0"-0' 2": dark olive gray, very soft, wet silt 0' 2"-1' 8": black, very soft, wet organic silt at 0' 5": fibrous material	0'6": 0 ppm			
1		1'11"-2'9": Some staining without sheen			1' 8"-3' 1": black, very soft, moist organic silt	1'0": 0.1 ppm 1'6": 0.1 ppm			
2		2'9"-3'2": stained with sheen				2'0": 0 ppm 2'6": 0.3 ppm			
3		3'2"-3'7": None 3'7"-4'0": stained with sheen			3' 1"-3' 3": grades to soft 3' 3"-4' 1.5": black, medium soft, moist organic silt	3'0": 0.4 ppm 3'6": 0.2 ppm			
4		4'0"-4'5": None 4'5"-4'6": stained without sheen 4'6"-5'0": stained with sheen			4' 1.5"-4' 5": light gray, medium soft, moist organic silt 4' 5"-5' 0": dark gray, medium soft, moist organic silt	4'0": 0.1 ppm 4'6": 0.3 ppm			
5		5'0"-5'11.5": stained with sheen 5'11.5"-6'5.7": stained with heavy sheen			5' 0"-6' 7": dark gray, soft to medium, moist organic silt	5'0": 0.2 ppm 5'6": 1.4 ppm			
6		6'5.7"-6'10": stained with sheen 6'10"-9'2": stained without sheen			6' 7"-6' 8": light olive to dark gray, soft to medium, moist silt 6' 8"-7' 0": light olive to dark gray, medium, moist silt	6'0": 4.6 ppm 6'6": 3.7 ppm			
7					7' 0"-7' 3.5": light olive to dark gray, soft, moist silt 7' 3.5"-10' 0": light olive to dark gray, medium, moist silt	7'0": 4.2 ppm 7'6": 5.1 ppm			
8						8'0": 3.6 ppm 8'6": 7.6 ppm			
9		9'2"-9'5": stained with sheen, 0.25" NAPL droplets 9'5"-10'0": stained with sheen, 0.25-1.00" diameter NAPL droplets				9'0": 5.8 ppm 9'6": 18 ppm			
10	at 10'11.5": 1 - 0.5" response 10'11.5"-11'1": No response	10'0"-10'3": stained without sheen 10'3"-10'4.5": stained with light sheen 10'4.5"-10'5": stained with sheen 10'5"-10'7.5": stained with light sheen 10'7.5"-11'1": stained with sheen, 0.25-0.50" diameter NAPL droplets		Not Recorded	Not Recorded	10' 0"-10' 3": dark gray to black, medium, moist silt 10' 3"-17' 8": gray, medium, moist silt at 10' 4.5": 0.05" fibrous material	10'0": 14.3 ppm 10'6": 18 ppm		

FLUTe Paper Reactions			Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
Depth									
11	11'1"-11'10": Spot stains 11'10"-11'11.5": Band 11'11.5"-12'1": Droplets		11'1"-11'5": stained with sheen, 0.25-0.50" diameter NAPL droplets, more prevalent 11'5"-11'9": stained with sheen, 0.25-0.50" diameter NAPL droplets, more prevalent 11'9"-11'10": stained without sheen, NAPL droplets 11'10"-12'8": stained without sheen, -NAPL droplets				11'0": 50.3 ppm 11'6": 49.5 ppm		
12	12'1"-12'7": No response 12'7"-13'9": stain spot		at 12'8": stained with sheen, 2 - 0.50" diameter oozing NAPL droplets 12'8"-12'9": stained without sheen, NAPL droplets 12'9"-13'6": stained without sheen, NAPL droplets				12'0": 52.9 ppm 12'6": 51.8 ppm		
13	13'9"-14'1.5": No response		at 13'6": stained without sheen, NAPL droplets, slightly more tacky 13'6"-13'10": stained without sheen, NAPL droplets 13'10"-15'0": None				13'0": 44.8 ppm 13'6": 97.1 ppm		
14	at 14'1.5": 1 - 0.25" response 14'2"-14'4": Spot 14'4"-14'5": No response 14'5"-14'7": 9 - 0.25-0.5" diameter responses 14'11.5" - 15'0": Staining		at 14'1.5": 1 - 0.25" spot at 14'2" 1 - 1.5" NAPL around mica-like material 14'2"-14'4": 1 - spot 14'5"-14'7": spots at 14'6": staining with sheen around glass shard 14'7"-15'0": stained without sheen, 9 spots			at 14' 2": 1.5" mica-like material, brittle and layered at 14' 6": 1.75" glass shard	14'0": 121 ppm 14'6": 113 ppm		
15	15'2"-15'6": 0.02" bleed through 15'6"-15'11": No response at 15'11": 1 - 0.25" response 15'11"-16'0": No response		15'0"-15'7.5": stained with sheen, NAPL droplets 15'7.5"-15'8.5": stained with sheen NAPL droplets at 15'7.5": stained with sheen, 1 - 0.20" diameter NAPL droplet 15'8.5"-16'3": stained				15'0": 90.4 ppm 15'6": 58 ppm		
16	16'0"-16'10": 10 pinhole diameter responses 16'10"-17'5": No response		16'3"-16'10": stained with sheen 16'10"-17'0": stained with sheen, 0.10" NAPL droplets throughout at 16'10": stained with sheen, 1 - 0.20" diameter NAPL droplet			16' 3"-16' 4": 0.5" glass shards	16'0": 84.1 ppm 16'6": 319 ppm		
17	at 17'5": 3 - 0.2" responses 17'5"-17'7": No response 17'7"-17'8": 18 - 0.2" responses		17'0"-17'8": stained with sheen at 17'5": stained with sheen, 1 - 0.20" diameter NAPL droplet				17'0": 200 ppm 17'6": 162 ppm		

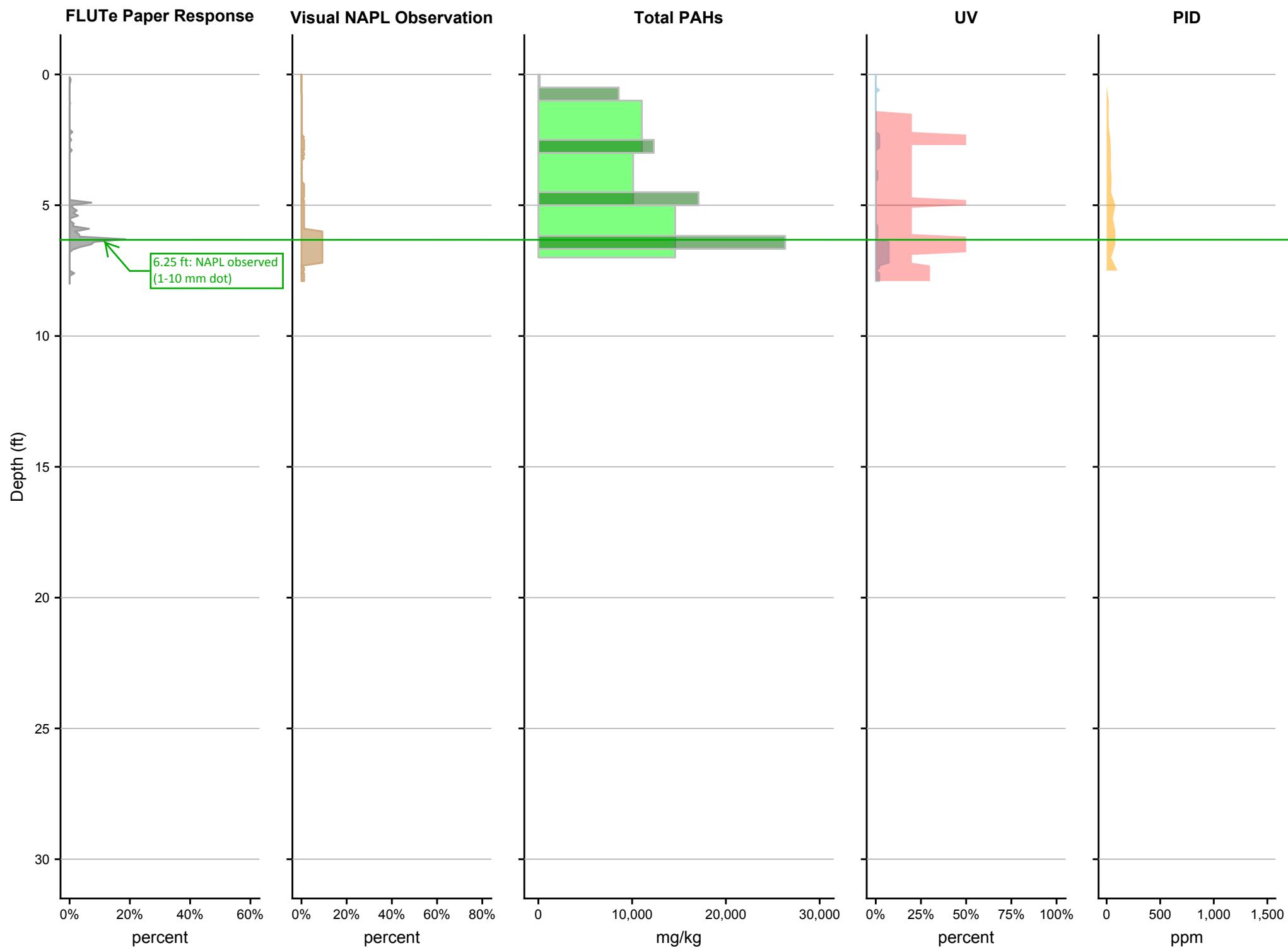
AA1-3



LOCATION: AA1-3 DATE: 2/19/2018 TIME: 10:21 LOGGED BY: A. Papalian, M. Conlon OSI DRILLING COMPANY:			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 14'8" NORTHING/EASTING: 718572.55, 633726.55 DEPTH TO TOP OF SEDIMENT: 3.6	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-3'0": No response	0'0"-1'11": stained without sheen	0'0"-0'3.5": No response 0'3.5"-1'10": pinhole diameter responses, 5-10 per inch 0'10"-1'10": fibrous material up to 0.125" in length 0'10"-1'10": pinhole-0.125" diameter responses, 5-10 per inch	0'0"-0'10": No response 0'10"-1'1": 3 - 0.125" diameter responses	0' 0"-0' 7": dark olive gray, very soft, very wet silt 0' 7"-3' 0": dark gray, very soft, very wet silt, fibrous material	0'6": 5.7 ppm		
1		1'11"-3'0": stained with light sheen	1'10"-2'2": pinhole-0.25" diameter responses, 5-10 per inch 1'10"-2'2": fibrous material up to 0.125" in length	1'1"-1'3": 3 - 0.125" diameter responses 1'3"-2'0": No response		1'0": 3 ppm 1'6": 11.6 ppm		
2			2'2"-2'5": fibrous material up to 0.25" in length 2'2"-2'5": pinhole-0.125" diameter responses, 70-80 per inch 2'5"-3'3": pinhole diameter responses, 5 per inch 2'5"-3'0": fibrous material up to 0.25" in length	2'0"-2'1": 1" band, 40-50% 2'1"-2'3": No response 2'3"-2'5": 2" band, 40% 2'5"-2'8": 10% 2'8"-3'2.5": No response		2'0": 6.3 ppm 2'6": 11.1 ppm		
3	3'0"-4'6": No response	3'0"-3'5": stained with light sheen 3'5"-3'6": stained with light sheen, pinhole-0.5" diameter NAPL droplets, 25% coverage 3'6"-4'0": stained with light sheen	3'0"-3'3": fibrous material up to 0.125" in length 3'3"-3'10": pinhole-0.125" diameter responses, 30-40 per inch 3'3"-3'10": fibrous material up to 0.25" in length 3'10"-4'4": fibrous material up to 0.125" in length 3'10"-4'4": pinhole-0.125" diameter responses, 20 per inch	at 3'2.5": 1 - 0.125" diameter response 3'2.5"-3'3.5": No response at 3'3.5": 1 - 0.25" x 0.5" response 3'3.5"-3'6.5": No response	3' 0"-5' 6": dark gray, soft, wet silt, fibrous material	3'0": 13.5 ppm 3'6": 36.7 ppm		
4	4'6"-4'9": 30-40% coverage 4'9"-5'2": pinhole diameter responses, up to 5 per inch	4'0"-4'4": stained with light sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 4'4"-5'6": stained with light sheen, pinhole-1" diameter NAPL droplets, 20 per inch	4'4"-5'0": fibrous material up to 0.25" in length 4'4"-5'0": pinhole-0.25" diameter responses, 50-60 per inch	4'3"-4'4.5": No response at 4'3": 1 - 0.5" diameter response 4'4.5"-5'6": 50%		4'0": 37.1 ppm 4'6": 114 ppm		
5	5'2"-5'5": No response at 5'5": 1 - 0.5" x 0.125" response 5'5"-5'6": No response 5'6"-6'6": No response	5'6"-5'10": stained with sheen, pinhole-0.5" diameter NAPL droplets, 5-10 per inch 5'10"-6'7": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch	5'0"-5'6": pinhole-0.125" diameter responses, 70-80 per inch 5'0"-5'6": fibrous material up to 0.25" in length 5'6"-6'10": pinhole diameter responses, 20-30 per inch	5'6"-6'3": 15-20%	5' 6"-9' 8": dark gray, medium soft, moist silt, trace clay 5' 10"-6' 7": trace fibers	5'0": 123.8 ppm 5'6": 33.7 ppm		
6	6'6"-6'9": 6 - pinhole diameter responses 6'9"-7'1": No response	6'7"-8'0": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5-10 per inch	6'10"-7'8": pinhole diameter responses, 15 per inch	6'3"-8'2": 40-50%		6'0": 39.1 ppm 6'6": 32.7 ppm		
7	7'1"-7'6": pinhole diameter responses, 10-15 per inch 7'6"-7'8": 10 pinhole diameter responses 7'8"-7'9": 15 pinhole diameter responses 7'9"-8'9": No response	7'3"-7'4": stained with sheen, 1 - 1.25" diameter oozing NAPL droplet	7'8"-8'10": pinhole-0.125" diameter responses, 30-40 per inch 7'8"-8'10": trace fibrous material up to 0.25" in length			7'0": 51.5 ppm 7'6": 56.2 ppm		
8	at 8'9": 1 pinhole diameter response 8'9"-8'11": No response 8'11"-8'11.5": 5 pinhole-0.125" diameter responses 8'11.5"-9'1.5": No response	8'0"-9'1": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5 per inch	8'5"-9'8": pinhole diameter responses, 20-30 per inch 8'10"-9'8": pinhole diameter responses, 20-30 per inch	8'2"-9'1": 15-20%	8' 9"-9' 0": 3" long rock	8'0": 51.5 ppm 8'6": 82.4 ppm		
9	9'1.5"-9'2.5": 6 pinhole-0.125" diameter responses 9'2.5"-9'4": No response 9'4"-9'8": No response at 9'4": 1 pinhole diameter response 9'8"-10'1": 20% coverage, pinhole-0.125" diameter responses	9'1"-9'8": stained with sheen, pinhole diameter NAPL droplets, 10-20 per inch 9'8"-10'0": stained with sheen, pinhole-0.5" diameter NAPL droplets, 10-20 per inch	at 9'5": partial layer of fibrous material 9'8"-10'3": pinhole diameter responses, 30-40 per inch	9'1"-9'8": 30% at 9'5": 1 - 0.5" diameter response 9'8"-10'1": 60%	at 9'5": 3.5" x 2" piece of glass 9' 8"-14' 8": dark gray to black, soft, moist silt, fibrous material	9'0": 224.4 ppm 9'6": 123.8 ppm		
10	10'1"-10'3.5": 90% coverage 10'3.5"-10'4.5": 10% coverage 10'4.5"-10'10.5": pinhole-0.125" diameter responses, 10-15 per inch 10'10.5"-11'1": 10% coverage, pinhole-0.25" diameter responses	10'0"-10'4": stained with sheen, pinhole-1" diameter NAPL droplets, 95% coverage 10'4"-11'1": stained with sheen, pinhole-1" diameter NAPL droplets, 20-30 per inch	10'3"-11'10": fibrous material up to 0.125" in length 10'3"-11'10": pinhole-0.125" diameter responses, 70-80 per inch	10'1"-10'4": 90% 10'4"-11'0": 50%		10'0": 218.8 ppm 10'6": 265.9 ppm		

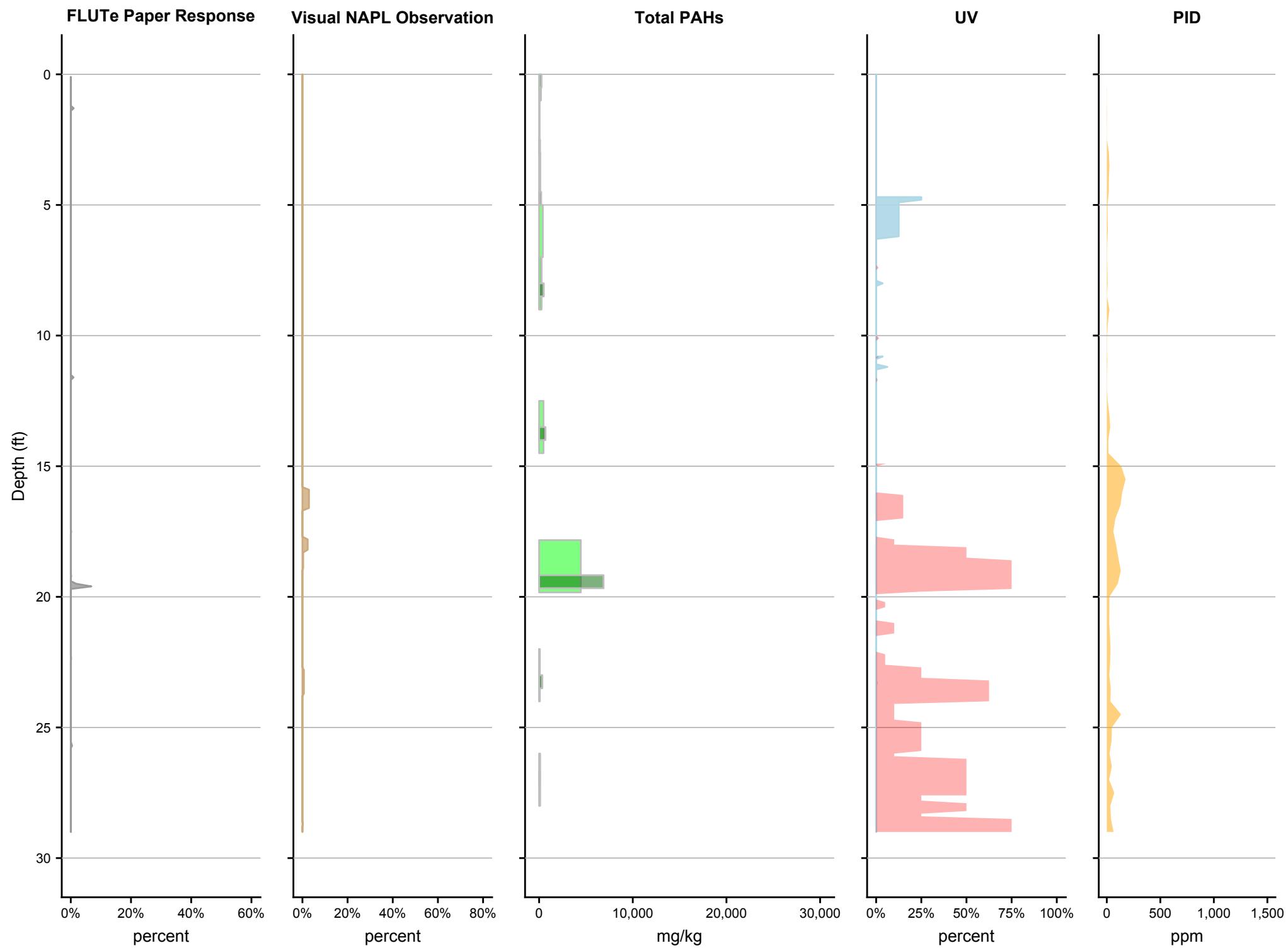
LOCATION: AA1-3 DATE: 2/19/2018 TIME: 10:21 LOGGED BY: A. Papalian, M. Conlon OSI DRILLING COMPANY:			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 14'8" NORTHING/EASTING: 718572.55, 633726.55 DEPTH TO TOP OF SEDIMENT: 3.6	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11	11'1"-11'6": 70% coverage 11'6"-11'9": 20% coverage 11'9"-13'3": pinhole-0.125" diameter responses, 10-15 per inch	11'1"-11'9": stained with sheen, pinhole-1" diameter NAPL droplets, 90% coverage 11'9"-13'1": stained with sheen, pinhole-1" diameter NAPL droplets, 10-20 per inch	11'10"-14'8": fibrous material up to 0.25" in length 11'10"-14'8": pinhole-0.25" diameter responses, 70-80 per inch	11'0"-11'8": 80% 11'8"-12'2": 50%		11'0": 234.9 ppm 11'6": 218.6 ppm		
12				12'2"-12'8": 20% 12'8"-13'1": 50%		12'0": 189.6 ppm 12'6": 219.4 ppm		
13	at 13'3": 0.25" wide band, 60% coverage 13'3"-14'1": pinhole-0.125" diameter responses, 5 per inch	13'1"-14'0": stained with sheen, pinhole-0.5" diameter NAPL droplets, 10 per inch		13'1"-13'7": 10% 13'7"-14'0": 20%		13'0": 112.4 ppm 13'6": 165.6 ppm		
14	14'1"-14'6": 20% coverage, pinhole-0.5" diameter responses 14'6"-14'8": 70% coverage, pinhole-1" diameter responses	14'0"-14'8": stained with sheen, pinhole-1" diameter NAPL droplets, 10 per inch		14'0"-14'6": 50% 14'6"-14'8": 95%		14'0": 109.8 ppm 14'6": 143.4 ppm		

AA1-4



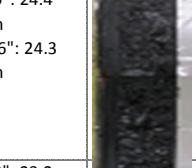
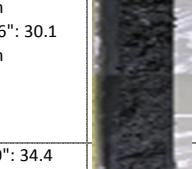
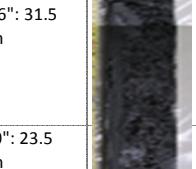
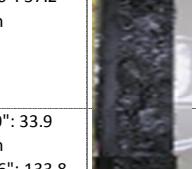
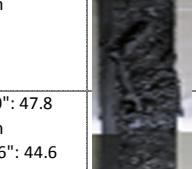
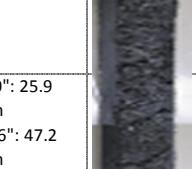
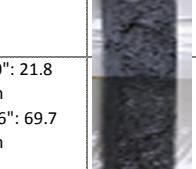
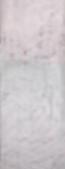
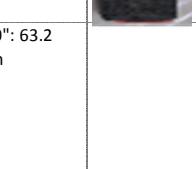
FLUTe Paper Reactions		Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
Depth	FLUTe Paper Reactions							
0	0'0"-1'6": No response	0'0"-0'9": None 0'9"-2'5": stained with sheen, 0.125" diameter NAPL droplets, 5-10 per inch	0'0"-0'3": No response 0'3"-0'5": No response at 0'3": 1 - pinhole diameter response 0'5"-0'7": No response at 0'5": 4 - pinhole diameter responses at 0'7": 1 - 0.5" x 0.125" response 0'7"-1'3": pinhole diameter responses, 2-5 per inch	0'0"-1'6": No response	0'0"-0'2": dark gray, very soft, wet silty clay 0'2"-0'9": dark gray, dark gray brown, soft, wet silty clay at 0' 7": 2" x 1" wood window latch 0'9"-1'0": dark gray, black, soft, wet silt with trace clay	0'6": 2.3 ppm		
1	at 1'6": 1 pinhole diameter response 1'6"-1'11": No response 1'11"-2'6": pinhole diameter responses, 2-5 per inch		1'3"-2'4": pinhole diameter responses, 5-10 per inch	1'6"-2'4": 20% coverage	1'0"-4'2": dark gray, black, soft, moist silt with trace clay at 1' 5": 2" long wood fragment	1'0": 20.5 ppm 1'6": 18.8 ppm		
2	2'6"-2'11": No response at 2'11": 1 pinhole diameter response 2'11"-4'7": No response	2'5"-3'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch	2'4"-2'9": pinhole-0.125" diameter responses, 5-10 per inch 2'9"-3'8": pinhole diameter responses, 2-5 per inch	2'4"-2'8": 50% coverage 2'8"-4'9": 20% coverage		2'0": 20.9 ppm 2'6": 35.7 ppm		
3		3'2"-4'2": stained with sheen, 0.125" diameter NAPL droplets, 5-10 per inch	3'8"-4'0": pinhole-0.125" diameter responses, 2-5 per inch			3'0": 40.3 ppm 3'6": 38.6 ppm		
4	4'7"-4'9.5": pinhole diameter responses, 1-2 per inch 4'9.5"-4'10.5": 5 0.125" diameter responses 4'10.5"-5'0": pinhole diameter responses, 2-5 per inch	4'2"-5'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch	4'0"-4'10": pinhole diameter responses, 5-10 per inch 4'10"-5'0": pinhole diameter responses, 2 per inch	4'9"-5'0": 50% coverage	4' 2"-5' 0": dark gray, black, medium soft, moist silt with trace clay	4'0": 46.7 ppm 4'6": 42.7 ppm		
5	5'0"-5'4": pinhole-0.125" diameter responses, 5 per inch 5'4"-5'8": pinhole diameter responses, 5 per inch 5'8"-5'9": 10 pinhole-0.125" diameter responses 5'9"-6'0": pinhole diameter responses, 2-5 per inch at 5'11": 1 - 0.25" response 5'11"-6'0": No response	5'0"-6'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10 per inch	5'0"-5'5": pinhole diameter responses, 5 per inch 5'5"-5'9": pinhole diameter responses, 10 per inch 5'9"-6'2": pinhole-0.125" diameter responses, 5 per inch	5'0"-6'2": 20% coverage	5' 0"-7' 11": dark gray, soft, moist silt, little clay at 5' 1": fibrous material	5'0": 81.4 ppm 5'6": 58.6 ppm		
6	6'0"-6'3": pinhole-0.125" diameter responses, 5-10 per inch 6'3"-6'5": 0.25" by 0.5" stain, 20% coverage 6'5"-6'8": pinhole-0.125" diameter responses, 2-5 per inch 6'8"-7'1": pinhole diameter responses, 0-2 per inch	6'0"-7'2": stained with sheen, pinhole-0.5" diameter oozing NAPL droplets, 10 per inch	6'2"-6'5": pinhole diameter responses, 2-5 per inch 6'5"-7'2": pinhole-0.25" diameter responses, 5-10 per inch	6'2"-6'9": 50% coverage 6'9"-7'4": 20% coverage	at 6' 3": plastic material	6'0": 82.5 ppm 6'6": 81.5 ppm		
7	7'1"-7'3": pinhole diameter responses, 2-5 per inch 7'3"-7'6": No response 7'6"-7'8": 10% coverage 7'8"-7'11": No response	7'2"-7'11": stained with sheen, pinhole-0.25" diameter oozing NAPL droplets, 10 per inch	7'2"-7'5": pinhole-0.125" diameter responses, 5-10 per inch 7'5"-7'7": pinhole diameter responses, 2-5 per inch 7'7"-7'11": pinhole-0.125" diameter responses, 5-10 per inch	7'4"-7'11": 30% coverage		7'0": 43 ppm 7'6": 101.9 ppm		

AA2-1

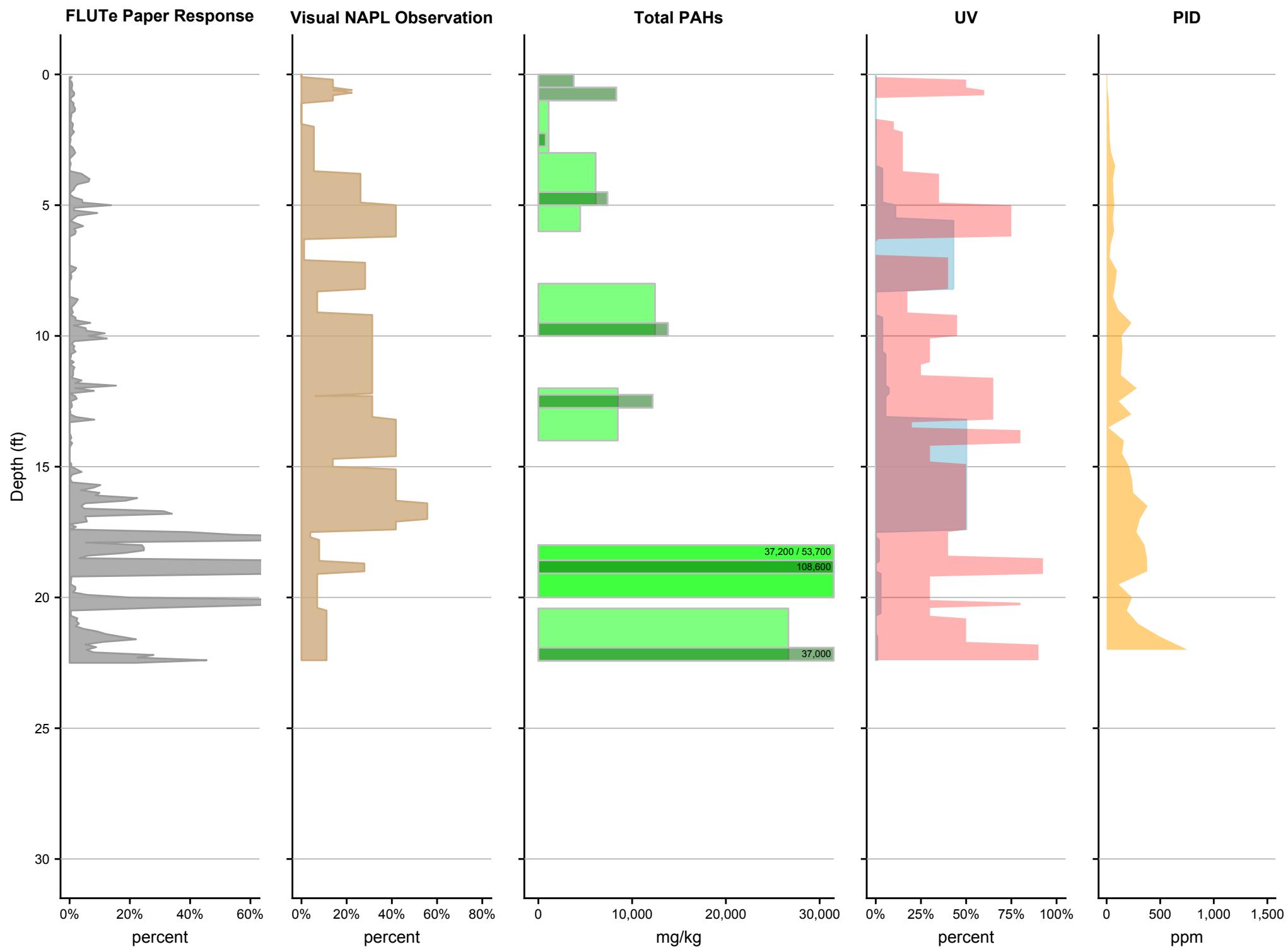


LOCATION: AA2-1 DATE: 3/8/2018 TIME: 14:47 LOGGED BY: D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'0" NORTHING/EASTING: 718398.52, 633708.4 DEPTH TO TOP OF SEDIMENT: 3.9	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-7'5": No response	0'0"-0'2": None 0'2"-4'8": stained without sheen	0'0"-0'9": No response at 0'9": 1 - pinhole diameter response 0'9"-1'6": No response	0'0"-7'5": No response	0' 0"-0' 2": olive gray brown, very soft, wet silt, trace clay 0' 2"-0' 6": olive gray, very soft, wet silt, trace clay 0' 6"-4' 10": olive gray, soft, wet silt, trace clay at 0' 7": <0.5" diameter white shells	0'6": 1.5 ppm		
1			at 1'6": 1 - pinhole diameter response 1'6"-2'6": No response		at 1' 9": <0.75" diameter white shells	1'0": 0.7 ppm 1'6": 2.6 ppm		
2			at 2'6": 1 - pinhole diameter response 2'6"-3'2": No response			2'0": 1.6 ppm 2'6": 1.3 ppm		
3			at 3'2": 1 - pinhole diameter response 3'2"-3'3": No response at 3'3": 1 - pinhole diameter response 3'3"-3'7": No response at 3'7": 1 - pinhole diameter response 3'7"-3'10": No response 3'10"-4'1": pinhole diameter responses, 0-2 per inch		3' 11"-4' 1": <0.125" trace white shell fragments	3'0": 20.3 ppm 3'6": 24.6 ppm		
4		4'8"-8'0": stained with sheen	4'1"-4'7": No response 4'7"-4'8": No response at 4'7": 1 - pinhole diameter response 4'8"-4'10": 25% coverage 4'10"-6'2": 10 - 15% coverage 4'10"-6'4": No response		4' 10"-6' 5": dark gray, soft, moist silt, trace clay	4'0": 19.6 ppm 4'6": 18.5 ppm		
5						5'0": 6.8 ppm 5'6": 7.8 ppm		
6			6'4"-6'9": No response at 6'4": 2 - pinhole diameter response at 6'9": 1 - pinhole diameter response 6'9"-6'11": No response at 6'11": 1 - pinhole diameter response 6'11"-7'6": No response		6' 5"-6' 9": olive gray, soft, moist silt, trace clay 6' 8"-6' 8": trace organic material 6' 9"-7' 7": dark gray, soft, moist silt, trace clay	6'0": 9.8 ppm 6'6": 4.2 ppm		
7	7'5"-17'6": No response at 7'5": 1 pinhole diameter response		at 7'6": 3 - pinhole diameter responses 7'6"-7'9": No response 7'9"-9'8": pinhole diameter responses, 0-2 per inch	at 7'5": 1 - 0.25" diameter response 7'5"-10'1": No response	7' 7"-8' 0": olive gray, medium soft, moist silt, trace clay	7'0": 2.6 ppm 7'6": 5.7 ppm		
8		8'0"-8'2": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 8'2"-8'9": stained with sheen, pinhole diameter diameter NAPL droplets, 0-2 per inch 8'9"-14'0": stained with sheen	at 8'0": 1 - 0.125" x 1" response		8' 0"-8' 2": dark gray, medium soft, moist silt, trace clay 8' 2"-9' 10": olive gray, medium soft, moist silt, trace clay	8'0": 7.9 ppm 8'6": 1.5 ppm		
9			9'8"-10'1": No response		9' 10"-10' 9": dark gray, medium soft, moist silt, trace clay 9' 10"-14' 10": trace fibers throughout	9'0": 24.7 ppm 9'6": 10.5 ppm		

LOCATION: AA2-1 DATE: 3/8/2018 TIME: 14:47 LOGGED BY: D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'0" NORTHING/EASTING: 718398.52, 633708.4 DEPTH TO TOP OF SEDIMENT: 3.9	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
10			at 10'1": 1 - 0.125" diameter response 10'1"-10'3": No response 10'3"-10'8": pinhole diameter responses, 0-2 per inch 10'8"-12'1": pinhole diameter responses, 2-5 per inch at 10'10": 1 - 0.125" x 1" response	at 10'1": 1 - 0.0625" x 1" response 10'1"-10'10": No response at 10'10": 1 - 0.25" diameter response 10'10"-11'8": No response	at 10'9": 2" x 0.5" piece of white plastic 10'9"-14'10": olive gray, medium soft, moist silt, trace clay	10'0": 2.9 ppm 10'6": 2.4 ppm		
11			at 11'3": 1 - 0.0625"-thick layer	11'8"-14'11": No response at 11'8": 1 - 0.125" x 0.25" response		11'0": 5.7 ppm 11'6": 2.8 ppm		
12			12'1"-12'4": No response 12'4"-12'10": pinhole diameter responses, 2-5 per inch 12'10"-13'3": pinhole diameter responses, 0-2 per inch			12'0": 1.9 ppm 12'6": 8.1 ppm		
13		at 13'8": stained with sheen, 1 - pinhole diameter NAPL droplet	13'3"-13'10": pinhole diameter responses, 5-10 per inch 13'10"-14'10": pinhole diameter responses, 2-5 per inch		at 13' 0": vegetation (root hairs)	13'0": 23.9 ppm 13'6": 32 ppm		
14		14'10"-15'0": stained with sheen	14'10"-15'10": pinhole diameter responses, 10-15 per inch	14'11"-16'1": No response at 14'11": 1 - 0.5" diameter response	14' 10"-29' 0": dark gray, medium stiff, moist silt, trace clay	14'0": 14.5 ppm 14'6": 15.3 ppm		
15		15'0"-15'5": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch 15'5"-15'11": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch 15'11"-16'7": stained with sheen, pinhole-0.25" diameter oozing NAPL droplets, 20-25 per inch	15'10"-16'3": pinhole diameter responses, 5-10 per inch			15'0": 135.2 ppm 15'6": 175.3 ppm		
16		16'7"-17'9": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	16'3"-17'2": pinhole diameter responses, 15-20 per inch	16'1"-17'0": 10 - 20% coverage		16'0": 144.4 ppm 16'6": 127.5 ppm		
17	at 17'6": 5 pinhole diameter responses 17'6"-18'7": No response	17'9"-18'2": stained with sheen, pinhole-0.25" diameter oozing NAPL droplets, 20 per inch	17'2"-18'2": pinhole diameter responses, 0-2 per inch	17'0"-17'9": No response 17'9"-18'1": 10% coverage		17'0": 80.5 ppm 17'6": 60.9 ppm		
18	18'7"-18'10": pinhole-0.125" diameter responses, 10-15 per inch 18'10"-19'3": pinhole diameter responses, 5-10 per inch	18'2"-18'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20 per inch 18'11"-19'7": stained with sheen, pinhole diameter NAPL droplets, 20-25 per inch	18'2"-19'4": pinhole diameter responses, 2-5 per inch	18'1"-18'7": 50% coverage 18'7"-19'8": 75% coverage		18'0": 87.1 ppm 18'6": 107.9 ppm		
19	19'3"-19'7": pinhole-0.125" diameter responses, 15-20 per inch 19'7"-23'3": No response	19'7"-19'10": stained with sheen, pinhole diameter NAPL droplets, 25-30 per inch 19'10"-20'10": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	19'4"-20'4": pinhole diameter responses, 0-2 per inch	19'8"-19'10": 25% coverage 19'10"-20'3": No response		19'0": 130.6 ppm 19'6": 102.8 ppm		

LOCATION: AA2-1 DATE: 3/8/2018 TIME: 14:47 LOGGED BY: D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'0" NORTHING/EASTING: 718398.52, 633708.4 DEPTH TO TOP OF SEDIMENT: 3.9	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
20		20'10"-21'7": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch	20'4"-21'10": pinhole diameter responses, 2-5 per inch	20'3"-20'5": 5% coverage 20'5"-21'0": No response		20'0": 24.4 ppm 20'6": 24.3 ppm		
21		21'7"-22'4": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch	21'10"-22'2": pinhole diameter responses, 0-2 per inch	21'0"-21'5": 10% coverage 21'5"-22'2": No response		21'0": 23.2 ppm 21'6": 30.1 ppm		
22		22'4"-22'10": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 22'10"-23'8": stained with sheen, pinhole-0.125" diameter oozing NAPL droplets, 30-40 per inch	22'2"-22'6": pinhole diameter responses, 5-10 per inch 22'6"-24'0": pinhole diameter responses, 0-2 per inch	22'2"-22'8": 5% coverage 22'8"-23'2": 25% coverage		22'0": 34.4 ppm 22'6": 31.5 ppm		
23	at 23'3": 1 pinhole diameter response 23'3"-23'9": No response 23'9"-25'5": No response at 23'9": 5 pinhole diameter responses	23'8"-23'10": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 23'10"-24'0": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	at 23'4": 1 - 0.125" response 23'4"-24'2": No response	23'2"-24'0": 50 - 75% coverage		23'0": 23.5 ppm 23'6": 37.2 ppm		
24	at 24'5": 1 pinhole diameter response	24'0"-24'10": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 24'10"-25'8": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	at 24'2": 3 - pinhole diameter responses 24'2"-24'7": No response 24'7"-24'10": pinhole diameter responses, 2-5 per inch 24'10"-26'2": pinhole diameter responses, 0-2 per inch	24'0"-24'10": 10% coverage 24'10"-25'11": 25% coverage	at 24' 6": 3" long twig	24'0": 33.9 ppm 24'6": 133.8 ppm		
25	25'5"-25'8": No response at 25'8": 3 pinhole diameter responses 25'8"-26'3": No response	25'8"-26'9": stained with sheen, pinhole diameter NAPL droplets, 5 per inch		25'11"-26'2": 10% coverage		25'0": 47.8 ppm 25'6": 44.6 ppm		
26	26'3"-26'8": No response at 26'3": 2 pinhole diameter responses 26'8"-27'4": No response at 26'8": 4 pinhole diameter responses	26'9"-27'5": stained with sheen, pinhole diameter NAPL droplets, 25-30 per inch	26'2"-26'5": pinhole diameter responses, 2-5 per inch 26'5"-27'9": pinhole diameter responses, 0-2 per inch	26'2"-27'7": 50% coverage	at 26' 6": 1" x 1" piece of plastic	26'0": 25.9 ppm 26'6": 47.2 ppm		
27	27'4"-28'9": No response at 27'4": 1 pinhole diameter response at 27'7": 1 pinhole diameter response	27'5"-28'0": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	27'9"-28'0": pinhole diameter responses, 5 per inch	27'7"-27'11": 25% coverage 27'11"-28'2": 50% coverage		27'0": 21.8 ppm 27'6": 69.7 ppm		
28	at 28'9": 2 pinhole diameter responses 28'9"-29'0": No response	28'0"-29'0": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch at 28'8": stained with sheen, 1 - 0.25" diameter oozing NAPL droplet	28'0"-28'8": pinhole diameter responses, 0-2 per inch 28'8"-29'0": No response	28'2"-28'6": 25% coverage 28'6"-29'0": 75% coverage		28'0": 33.3 ppm 28'6": 38.9 ppm		
29						29'0": 63.2 ppm		

AA2-3

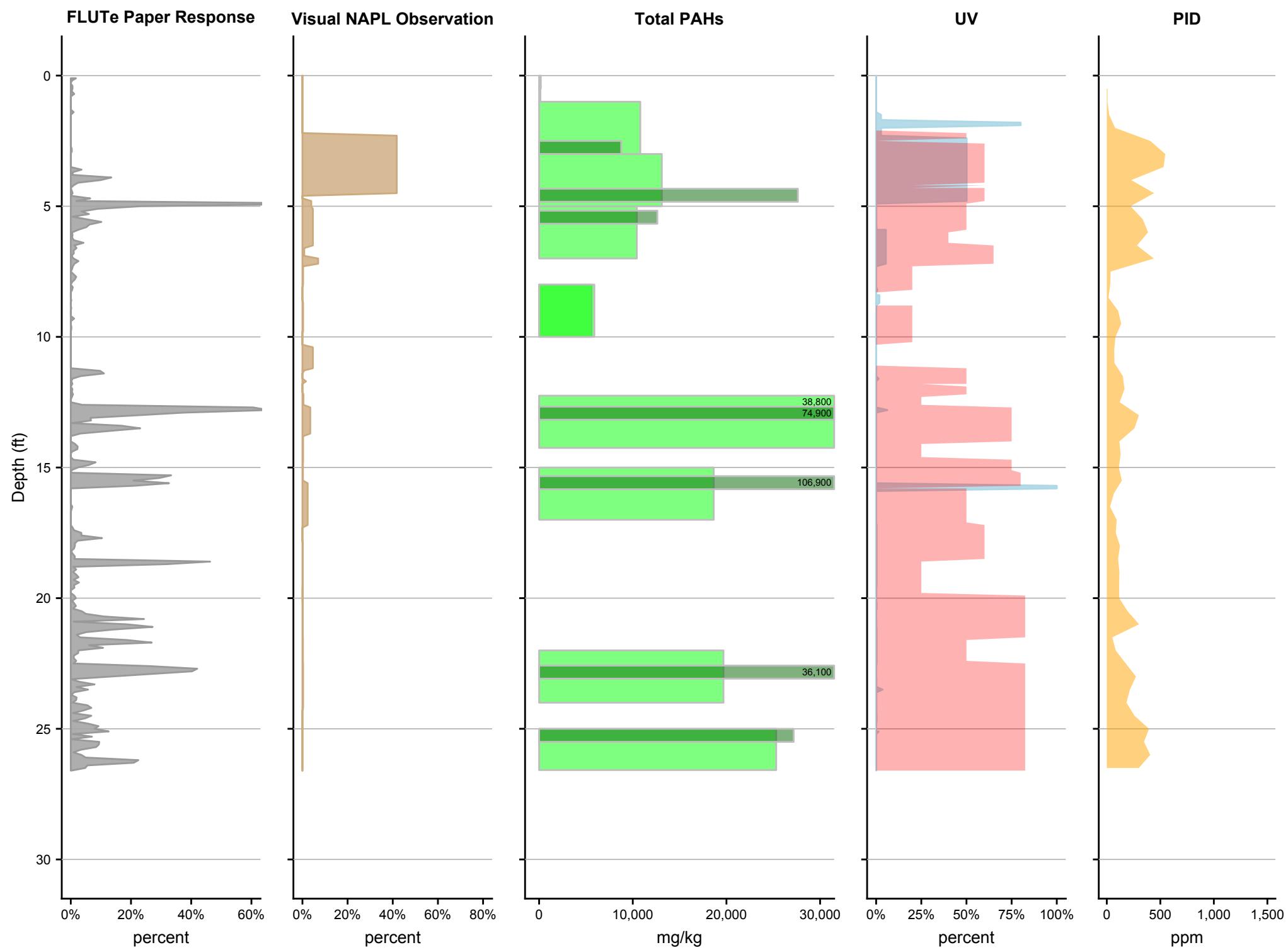


Geological Log Data			SAMPLING METHOD: Vibracore	Comments:	Ramboll			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-0'9": No response at 0'9": 1 pinhole response 0'9"-2'10": No response	0'0"-0'3": stained without sheen 0'3"-1'0": stained with sheen, pinhole-1" diameter NAPL droplets, 5-10 per inch 0'7"-0'8": stained with sheen, 2" diameter oozing and tacky NAPL droplets	0'0"-1'5": pinhole responses, 0-2 per inch	0'0"-0'3": No response 0'3"-0'7": 50% coverage 0'7"-0'9": 60% coverage 0'9"-1'10": No response	0' 0"-0' 3": olive gray, very soft, wet silt 0' 3"-2' 0": dark gray, very soft, very moist silt	0'0": 7 ppm 0'6": 7.2 ppm		
1		1'0"-2'0": stained with sheen, NAPL droplets, 2-5 per inch	1'5"-1'10": pinhole responses, 2-5 per inch 1'10"-2'2": pinhole responses, 20 per inch	1'10"-2'2": 10% coverage		1'0": 19.9 ppm 1'6": 22.1 ppm		
2	2'10"-3'0": 4 pinhole responses	2'0"-3'10": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5-7 per inch	2'2"-3'7": pinhole responses, 5 per inch	2'2"-3'9": 15% coverage	2' 0"-5' 0": dark gray, very soft, moist silt	2'0": 27.5 ppm 2'6": 29.4 ppm		
3	3'0"-3'5": No response at 3'5": 1 pinhole response 3'5"-3'10": No response 3'10"-4'1": pinhole-0.125" diameter responses, 15-20 per inch	3'10"-5'0": stained with sheen, pinhole-1.25" diameter NAPL droplets, 10-12 per inch	3'7"-5'0": pinhole-0.125" diameter responses, 15-20 per inch	3'9"-5'0": 30-40% coverage		3'0": 42.8 ppm 3'6": 80.4 ppm		
4	4'1"-4'3": 5 pinhole responses at 4'1": 1 - 0.5" by 0.25" response 4'3"-4'6": pinhole responses, 15-20 per inch 4'6"-4'8": No response at 4'8": 15-20% coverage 4'8"-4'11": No response at 4'11": 1 response 4'11"-5'0": No response					4'0": 60.1 ppm 4'6": 63.1 ppm		
5	5'0"-5'6": 20% coverage 5'6"-5'8": pinhole responses, 1-2 per inch 5'8"-6'1": 15% coverage	5'0"-6'3": stained with sheen, pinhole-1" diameter NAPL droplets, 20-30 per inch	5'0"-5'7": pinhole-0.125" diameter responses, 60 per inch 5'7"-8'2": 1 pinhole-0.25" diameter response, 50-60 per inch 5'7"-8'2": fibrous materials up to 0.25" in length	5'0"-6'2": 70-80% coverage 5' 0"-8' 2": fibrous material throughout	5' 0"-8' 2": dark gray, soft, moist silt	5'0": 72.6 ppm 5'6": 58.1 ppm		
6	6'1"-7'3.5": No response	6'3"-7'3": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch, 0.25" diameter NAPL droplets, 1 per inch		6'2"-6'4": No response at 6'2": 2 0.25" responses 6'4"-7'0": No response at 6'4": 1 0.25" response		6'0": 70.1 ppm 6'6": 38.5 ppm		
7	7'3.5"-7'9": pinhole-0.125" diameter responses, 10 per inch 7'9"-8'2": No response	7'3"-8'2": stained with sheen, pinhole diameter NAPL droplets, 30-40 per inch 7'3"-8'2": stained with sheen, 0.125-1" diameter NAPL droplets, 20 per inch		7'0"-8'2": 40% coverage		7'0": 28.1 ppm 7'6": 95.8 ppm		
8	8'2"-8'5": No response at 8'5": 1 pinhole response 8'5"-9'1": No response	8'2"-9'3": stained with sheen, pinhole-1" diameter NAPL droplets, 2-5 per inch	8'2"-8'10": pinhole responses, 20 per inch 8'10"-9'4": pinhole responses, 10-15 per inch	8'2"-9'3": 15-20% coverage 8' 2"-13'2": very dark gray, soft, moist silt, trace clay		8'0": 81.2 ppm 8'6": 59.9 ppm		
9	at 9'1": 4 pinhole responses 9'1"-9'3": No response 9'3"-9'5": pinhole responses, 2-5 per inch 9'5"-9'6": 5 pinhole responses 9'5"-9'6": 1 - 0.5" by 0.125" response 9'6"-9'9": 5 pinhole responses 9'9"-9'11": pinhole-0.25" diameter responses, 5 per inch 9'11"-10'2.5": No response	9'3"-12'3": stained with sheen, pinhole-1.5" diameter NAPL droplets, 5-10 per inch	9'4"-10'8": pinhole-0.125" diameter responses, 20 per inch	9'3"-10'0": 40-50% coverage		9'0": 108.7 ppm 9'6": 232.7 ppm		
10	at 10'2.5": 1 - pinhole diameter response 10'2.5"-10'4": No response at 10'4": pinhole - 0.125" diameter response 10'4"-11'0": No response		10'8"-12'0": pinhole-0.125" diameter responses, 20-30 per inch	10'0"-11'0": 30% coverage		10'0": 139.8 ppm 10'6": 147.9 ppm		

Geological Data			SAMPLING METHOD: Vibracore	Comments:	Ramboll			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11	11'0"-11'5": pinhole responses, 0-2 per inch 11'5"-11'5.5": No response 11'5.5"-11'9": 2 pinhole responses 11'9"-11'10": No response 11'10"-11'11": 16 pinhole-0.125" diameter responses 11'11"-12'1": No response			11'0"-11'7": 25% coverage 11'7"-13'2": 60-70% coverage		11'0": 139.6 ppm 11'6": 133.3 ppm		
12	at 12'1": 2 - pinhole diameter responses 12'1"-12'3.5": No response at 12'3.5": 2 pinhole responses 12'3.5"-12'8": No response at 12'8": 1 pinhole response 12'8"-12'11": No response 12'11"-13'1": pinhole responses, 10 per inch	12'3"-12'4": stained with sheen, 1 - 1.5" diameter oozing NAPL droplet 12'4"-13'2": stained with sheen, pinhole-1.5" diameter NAPL droplets, 5-10 per inch	12'0"-12'3": pinhole-0.125" diameter responses, 30-40 per inch at 12'2": 0.5" fibrous material 12'3"-13'2": pinhole-0.125" diameter responses, 20-30 per inch			12'0": 281.6 ppm 12'6": 113.2 ppm		
13	13'1"-13'2": No response at 13'2": 1 pinhole response 13'2"-14'5": pinhole-0.125" diameter responses, 5-10 per inch	13'2"-14'7": stained with sheen, pinhole-1" diameter NAPL droplets, 20-30 per inch	13'2"-17'5": pinhole-0.25" diameter responses, 60-70 per inch 13'2"-17'5": fibrous material up to 0.75" in length throughout	13'2"-13'7": 20% coverage 13'7"-14'1": 80% coverage 13'8"-13'9": 25% coverage	13' 2"-15' 5": dark gray, soft, moist silt 13' 2"-14' 7": fibrous material	13'0": 231.8 ppm 13'6": 14.5 ppm		
14	14'5"-14'10": No response 14'10"-16'2": pinhole-0.75" diameter responses, 30-40 per inch	14'7"-15'1": stained with sheen, pinhole-0.5" diameter NAPL droplets, 10-15 per inch		14'1"-14'11": 30% coverage 14'11"-17'5": 50% coverage		14'0": 161.3 ppm 14'6": 144.3 ppm		
15		15'1"-16'5": stained with sheen, pinhole-1" diameter NAPL droplets, 20-30 per inch			15' 5"-17' 5": dark gray, medium soft, moist silt	15'0": 211 ppm 15'6": 237.9 ppm		
16	16'2"-16'11": pinhole-1" diameter responses, 40-50 per inch 16'11"-17'5": pinhole-0.125" diameter responses, 10 per inch	16'5"-17'0": stained with sheen, pinhole-1" diameter NAPL droplets, 30-40 per inch			at 16' 3": root matter	16'0": 248.5 ppm 16'6": 381.8 ppm		
17	17'5"-17'9.5": 75% coverage 17'9.5"-18'1": pinhole-0.125" diameter responses, 5 per inch	17'0"-17'5": stained with sheen, pinhole-1" diameter NAPL droplets, 20-30 per inch 17'5"-17'8": stained with sheen, pinhole-0.75" diameter NAPL droplets, 2-5 per inch 17'8"-17'9": stained with sheen, upwards of 50 - pinhole diameter NAPL droplets 17'9"-18'7": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5-0 per inch	17'5"-17'8": pinhole responses, 5-10 per inch 17'8"-17'9": pinhole responses, 30-40 per inch 17'9"-18'7": pinhole-0.125" diameter responses, 5-10 per inch	17'5"-18'6": 40% coverage	17' 5"-17' 8": dark gray, medium soft to firm, moist silt, trace clay 17' 8"-17' 9": dark gray, medium soft to firm, moist silt, some fine sand 17' 9"-18' 7": dark gray, medium soft to firm, moist silt, trace clay	17'0": 310.7 ppm 17'6": 279 ppm		
18	18'1"-18'5": pinhole-0.25" diameter responses, 15-20 per inch 18'5"-18'7": pinhole responses, 5 per inch 18'7"-19'1.5": 90% coverage	18'7"-18'8": stained with sheen, upwards of 50 - pinhole diameter NAPL droplets 18'8"-19'0": stained with sheen, pinhole-1" diameter NAPL droplets, 15-20 per inch at 18'9": stained with sheen, 1 - 0.5" x 3.5" NAPL layer	18'7"-19'1": pinhole responses, 0-2 per inch	18'6"-19'1": 90-95% coverage	18' 7"-18' 8": dark gray, medium soft to firm, moist silt, trace fine sand 18' 8"-19' 0": dark gray, medium soft to firm, moist silt, trace clay	18'0": 354.9 ppm 18'6": 376.1 ppm		
19	19'1.5"-19'2": 5 pinhole responses 19'2"-19'10": No response 19'10"-20'0": 10 pinhole-0.125" diameter responses	19'0"-20'6": stained with sheen, pinhole-1" diameter NAPL droplets, 2-5 per inch at 19'0": stained with sheen, 1 - 0.5" x 3.5" NAPL layer	19'1"-20'7": pinhole-0.125" diameter responses, 10-15 per inch	19'1"-20'2": 30% coverage	19' 0"-20' 6": olive gray, medium soft to firm, moist silt, trace clay	19'0": 379.4 ppm 19'6": 111.6 ppm		
20	20'0"-20'4": 40% coverage 20'2"-20'3": 1 - 1" by 3.25" response 20'4"-20'9.5": No response 20'9.5"-21'2.5": pinhole responses, 5-10 per inch	at 20'2": stained with sheen, 1 - 3.5" x 0.125" NAPL layer 20'6"-22'5": stained with sheen, pinhole-0.5" diameter NAPL droplets, 10-12 per inch	20'7"-21'6": pinhole responses, 5-10 per inch	20'2"-20'4": 80% coverage 20'4"-20'10": 30% coverage 20'10"-21'10": 50% coverage	at 20' 1": 3" feather 20' 6"-22' 5": dark gray, medium soft to firm, moist silt, trace clay	20'0": 237.8 ppm 20'6": 188.4 ppm		
21	21'2.5"-22'0": pinhole-0.5" diameter responses, 15-20 per inch		21'6"-22'5": pinhole-0.125" diameter responses, 2-5 per inch	21'10"-22'5": 90% coverage	at 21' 1": 1 " sharp foreign object	21'0": 292.1 ppm 21'6": 499 ppm		

LOCATION: AA2-3 DATE: 2/22/2018 TIME: 12:01:00 PM LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI				SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 22'5" NORTH/EASTING: 718587.05, 633765.43 DEPTH TO TOP OF SEDIMENT: 2.8	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL		UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22	22'0"-22'5": 30% coverage 22'3"-22'4": 1 - 1" by 1.5" response 22'4"-22'5": No response	at 22'3": stained with sheen, 1 - 1" diameter oozing NAPL droplet					22'0": 757.4 ppm		

AA2-4



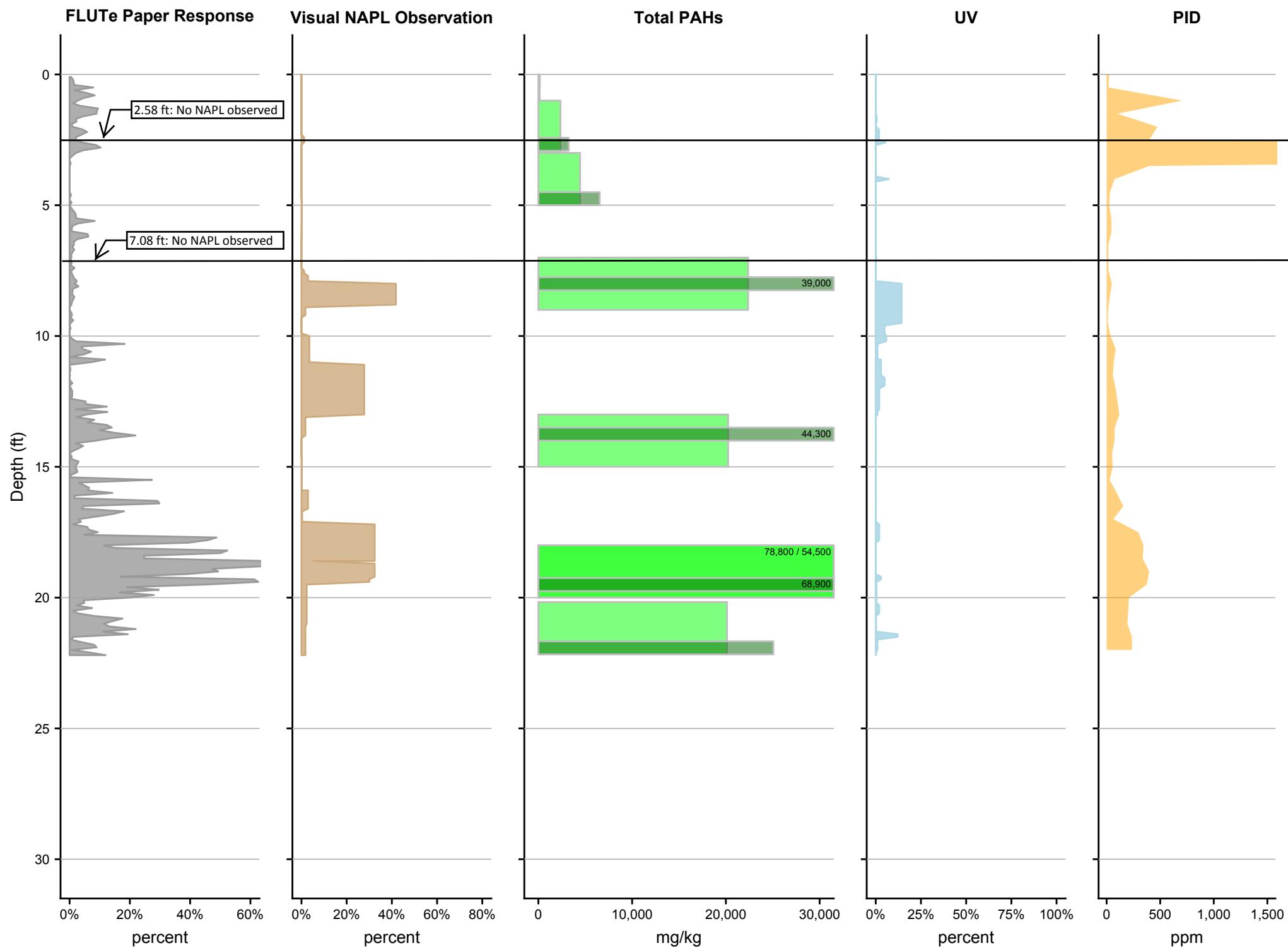
LOCATION: AA2-4 DATE: 2/22/2018 TIME: 14:40 LOGGED BY: A. Papalian, M. Conlon, D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718609.88, 633786.23 DEPTH TO TOP OF SEDIMENT: 2.5	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-2'7.5": No response at 0'1.5": 1 - 0.25" diameter response	0'0"-1'8": stained without sheen	0'0"-1'6": pinhole diameter responses, 5 per inch, 1- 0.25"-long fibrous material	0'0"-2'3": No response	0'0"-4' 10": dark gray, very soft, wet silt, fibrous material at 0' 4": shell fragments	0'6": 7.3 ppm		
1		1'8"-2'4": stained with sheen	1'6"-1'9": pinhole-0.125" diameter responses, 10-15 per inch 1'9"-1'11": 80% 1'11"-2'5": pinhole-0.125" diameter responses, 10-15 per inch		at 1' 7": shell fragments	1'0": 6.6 ppm 1'6": 22.7 ppm		
2	2'7.5"-2'11": pinhole-0.125" diameter responses, 15 per inch 2'11"-3'3": No response	2'4"-4'6": stained with sheen, pinhole-1" diameter NAPL droplets, 20-30 per inch	2'5"-4'10": pinhole-0.25" diameter responses, 60-70 per inch	2'3"-2'5": 50% coverage 2'5"-2'7": No response 2'7"-4'10": 60% coverage	at 2'1.5": shell fragments	2'0": 77.5 ppm 2'6": 406.2 ppm		
3	3'3"-3'4": pinhole diameter responses, 20 per inch 3'4"-3'7": No response at 3'5.5": 1 - 0.25" diameter response 3'7"-4'3": pinhole-0.25" diameter responses, 20-30 per inch					3'0": 546.2 ppm 3'6": 530.6 ppm		
4	4'3"-4'7": pinhole-0.125" diameter responses, 5 per inch 4'7"-4'9": pinhole-0.5" diameter responses, 30 per inch 4'9"-4'10": 1 - 1" x 2" response 4'10"-4'10.5": 90% coverage 4'10.5"-4'11.5": pinhole-0.25" diameter responses, 20 per inch 4'11.5"-5'1": pinhole-0.125" diameter responses, 10 per inch	4'6"-4'10": stained with sheen 4'10"-5'1": stained with sheen, pinhole-0.75" diameter oozing NAPL droplets, 5 per inch	4'10"-5'7": pinhole diameter responses, 20 per inch	4'1"-4'4": 20% coverage 4'10"-5'11": 50% coverage	4' 10"-7' 3": very dark gray, soft, moist silt, trace clay	4'0": 228.7 ppm 4'6": 441.6 ppm		
5	5'1"-5'2": 5 pinhole diameter responses 5'2"-5'3": 12 pinhole-0.25" diameter responses 5'3"-5'8": pinhole-0.125" diameter responses, 5 per inch 5'8"-5'10.5": pinhole diameter responses, 10-15 per inch 5'10.5"-6'2": No response	5'1"-6'6": stained with sheen, pinhole-0.5" diameter NAPL droplets, 2-5 per inch	5'7"-5'11": pinhole diameter responses, 15-20 per inch 5'10"-5'11": 1 - 0.25" -long trace fibrous material 5'11"-7'3": pinhole diameter responses, 20-30 per inch	5'11"-6'6": 40% coverage		5'0": 221.5 ppm 5'6": 336.8 ppm		
6	at 6'2": 1 pinhole diameter response 6'2"-6'4.5": No response 6'4.5"-6'9.5": No response at 6'4.5": 2 pinhole-0.125" diameter responses at 6'9.5": 1 pinhole diameter response 6'9.5"-7'0": No response	6'6"-7'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-7 per inch		6'6"-7'3": 60-70% coverage	at 6' 5": trace fine sand	6'0": 385.3 ppm 6'6": 281.9 ppm		
7	7'0"-7'3": 10 pinhole diameter responses 7'3"-7'5": pinhole diameter responses, 2-5 per inch 7'5"-7'7": No response 7'7"-7'11": pinhole diameter responses, 2-5 per inch 7'11"-8'6": No response	7'0"-7'3": stained with sheen, pinhole-1" diameter NAPL droplets, 2-5 per inch 7'3"-8'0": stained with sheen, pinhole-0.125" diameter oozing NAPL droplets, 20 per inch	7'3"-7'8": pinhole diameter responses, 5 per inch 7'8"-8'0": pinhole diameter responses, 2 per inch	7'3"-8'2": 20% coverage	7' 3"-9' 9": dark gray, medium soft, moist silt, little clay	7'0": 440.1 ppm 7'6": 36.2 ppm		

LOCATION: AA2-4 DATE: 2/22/2018 TIME: 14:40 LOGGED BY: A. Papalian, M. Conlon, D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718609.88, 633786.23 DEPTH TO TOP OF SEDIMENT: 2.5	Comments:	RAMBOLL			
Depth	FLUTE Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTE Paper
8	8'6"-8'10": No response at 8'6": 3 pinhole diameter responses 8'10"-9'4": No response at 8'10": 4 pinhole diameter responses	8'0"-8'8": stained with heavy sheen 8'8"-9'9": stained with sheen, pinhole-0.125" diameter oozing NAPL droplets, 20 per inch	8'0"-8'2": pinhole diameter responses, 5 per inch 8'2"-8'5": pinhole diameter responses, 5 per inch at 8'2": 2 - 0.125" diameter response 8'5"-8'8": pinhole - 0.125" diameter responses, 5-10 per inch 8'8"-9'7": pinhole diameter responses, 5-10 per inch	8'2"-8'9": No response 8'9"-10'2": 20% coverage		8'0": 32.2 ppm 8'6": 15.9 ppm		
9	9'4"-9'7": pinhole diameter responses, 2-5 per inch 9'7"-11'3": No response	9'9"-10'5": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	9'7"-10'7": pinhole diameter responses, 10 per inch		9'9"-12'3": dark gray, dark olive gray, medium soft, moist silt, little clay	9'0": 106.1 ppm 9'6": 134.3 ppm		
10		10'5"-11'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch	10'7"-11'0": pinhole diameter responses, 2 per inch	at 10'0": 1 - 0.25" diameter response at 10'0": 1 - 2" x 0.25" response 10'2"-11'2": No response		10'0": 81.3 ppm 10'6": 69.5 ppm		
11	11'3"-11'7": pinhole-0.5" diameter responses, 10 per inch 11'7"-12'3": pinhole diameter responses, 5-10 per inch	11'2"-11'4": stained with sheen at 11'4": stained with sheen, 1 - 0.75" x 0.25" layer of oozing NAPL 11'4"-11'8": stained with sheen 11'8"-12'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10 per inch	11'0"-11'3": pinhole diameter responses, 10 per inch 11'3"-11'7": pinhole diameter responses, 2 per inch 11'7"-12'0": pinhole diameter responses, 5-10 per inch at 11'7": No response	11'2"-12'3": 50% coverage at 11'9": 1 - 0.25"-thick layer		11'0": 71.6 ppm 11'6": 150.2 ppm		
12	12'3"-12'5": No response at 12'5": 1 pinhole diameter response 12'5"-12'8": No response 12'8"-13'1": 70% coverage 12'9"-12'11": 1 - 2" x 2.75" response 12'11"-13'1": 1 - 1.5" x 1" response	12'3"-12'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 25-30 per inch at 12'8": stained with sheen, 1 - 0.125" thick oozing NAPL layer 12'8"-13'8": stained with sheen, pinhole-0.25" diameter NAPL droplets, 30 per inch	12'0"-12'10": pinhole diameter responses, 2-5 per inch at 12'10": 1 - 0.06" -thick layer 12'10"-13'5": pinhole diameter responses, 2-5 per inch	12'3"-12'8": 25% coverage 12'8"-14'0": 75% coverage	12' 3"-12' 8": dark gray, medium soft, moist silt, trace clay at 12' 5": <7" long fibrous plastic piece 12' 8"-17' 3": dark gray, medium soft, moist to very moist silt, trace fine sand	12'0": 165.4 ppm 12'6": 120.3 ppm		
13	13'1"-13'10": pinhole - 0.5" diameter responses, 10% coverage 13'10"-14'2": No response	13'8"-14'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20 per inch	13'5"-13'8": No response 13'8"-15'0": pinhole diameter responses, 5-10 per inch			13'0": 300.6 ppm 13'6": 258.2 ppm		
14	14'2"-14'4": pinhole - 0.125" diameter responses, 5% coverage 14'4"-14'9": pinhole diameter responses, 2-5 per inch 14'9"-15'1": 1" x 0.5" responses, 10% coverage	14'10"-15'7": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch		14'0"-14'8": 25% coverage 14'8"-15'3": 0.125" - 0.25"-thick band, 75% coverage	14' 8"-15' 4": dark gray and gray bands, each 0.125" - 0.25", equal amounts dark gray/gray	14'0": 118.4 ppm 14'6": 128.8 ppm		
15	15'1"-15'4": pinhole-0.125" diameter responses, 2-5 per inch 15'4"-15'10": pinhole - 1.5" diameter responses, 50% coverage 15'10"-16'4": No response	15'7"-17'3": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch	15'0"-15'8": pinhole diameter responses, 2-5 per inch 15'8"-15'9": 1 - 1" x response 15'8"-16'5": pinhole diameter responses, 2-5 per inch	15'3"-15'8": 80% coverage 15'8"-15'9": No response 15'9"-17'3": 50% coverage	at 15' 2": root hair	15'0": 113 ppm 15'6": 140.5 ppm		

LOCATION: AA2-4 DATE: 2/22/2018 TIME: 14:40 LOGGED BY: A. Papalian, M. Conlon, D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718609.88, 633786.23 DEPTH TO TOP OF SEDIMENT: 2.5	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
16	16'4"-17'0": No response at 16'4": 4 pinhole diameter responses		16'5"-17'3": pinhole diameter responses, 0-2 per inch			16'0": 65.3 ppm 16'6": 30.3 ppm		
17	17'0"-17'3": No response at 17'0": 2 pinhole diameter responses 17'3"-18'6": pinhole diameter responses, 0-5 per inch	17'3"-17'11": stained with sheen 17'11"-19'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	17'3"-19'6": pinhole diameter responses, 50 per inch	17'3"-18'6": 50-70% coverage	17' 3"-21' 6": dark gray, silt at 17' 11": fibrous material	17'0": 92.3 ppm 17'6": 83.9 ppm		
18	18'6"-18'8": 25% coverage 18'8"-19'4": pinhole diameter responses, 0-5 per inch			18'6"-19'11": 25% coverage		18'0": 123.3 ppm 18'6": 105.7 ppm		
19	at 19'4": 2 0.125" responses 19'4"-19'6": pinhole diameter responses, 0-5 per inch 19'6"-20'5.5": pinhole diameter responses, 0-5 per inch at 19'6": 1 0.125" response	19'6"-20'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch	19'6"-20'2": pinhole diameter responses, 20 per inch	19'11"-21'6": 75-90% coverage		19'0": 118 ppm 19'6": 115.3 ppm		
20	at 20'5.5": 2 0.125" responses 20'5.5"-20'7": pinhole diameter responses, 0-5 per inch 20'7"-21'6": 10% coverage	20'2"-21'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	20'2"-20'5": pinhole diameter responses, 50 per inch 20'5"-20'9": pinhole diameter responses, 5-10 per inch 20'9"-21'1": pinhole diameter responses, 20-30 per inch			20'0": 116.5 ppm 20'6": 194.6 ppm		
21	21'6"-26'7": pinhole diameter responses, 0-5 per inch 21'7"-21'8": 15% coverage 21'8"-22'6": pinhole-0.25" diameter responses, 0-5 per inch	21'6"-22'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch	21'1"-21'3": pinhole diameter responses, 0-5 per inch 21'3"-21'6": pinhole diameter responses, 50 per inch 21'6"-22'6": pinhole diameter responses, 50 per inch	21'6"-22'6": 40-60% coverage	21' 6"-26' 7": dark gray, silt at 21' 6": 6" long fibrous material at 21' 8": 0.25" x 0.5" organic shell-like, rounded, "bean"-like object	21'0": 301.5 ppm 21'6": 51.6 ppm		
22	22'6"-22'9": 25-35% coverage 22'9"-22'10": 10 pinhole-0.125" diameter responses 22'10"-23'0": 15% coverage	22'6"-24'3": stained with sheen, 0.125" diameter NAPL droplets, 15-20 per inch	22'6"-23'1": pinhole diameter responses, 10-15 per inch	22'6"-26'7": 75-90% coverage		22'0": 83.4 ppm 22'6": 177.4 ppm		
23	23'0"-23'2": pinhole-0.125" diameter responses, 0-5 per inch 23'2"-24'8": pinhole-0.25" diameter responses, 5-10 per inch at 23'3": 1 - 0.5" x 0.75" response at 23'6": 1 - 0.25" 0.5" response		23'1"-23'6": pinhole diameter responses, 25-30 per inch at 23'6": 1 - 0.25" x 0.5" response 23'6"-24'2": pinhole diameter responses, 25-30 per inch		at 23' 11": another "bean"-like object	23'0": 272.8 ppm 23'6": 216 ppm		

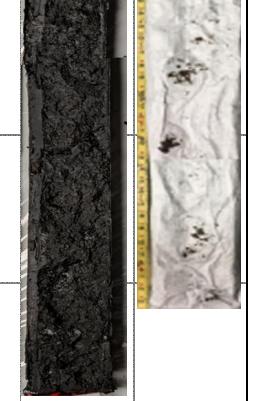
LOCATION: AA2-4 DATE: 2/22/2018 TIME: 14:40 LOGGED BY: A. Papalian, M. Conlon, D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'7" NORTHING/EASTING: 718609.88, 633786.23 DEPTH TO TOP OF SEDIMENT: 2.5	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
24	at 24'0": 1 - 0.25" x 0.75" response at 24'1": 1 - 0.25" x 0.5" response at 24'6": 1 - 0.25" x 0.5" response, 1 - 0.5" diameter response 24'8"-24'10.5": 10% coverage 24'10.5"-25'1": 50% coverage	24'3"-24'11": stained with sheen, NAPL droplets, 10-15 per inch 24'11"-25'1": stained with sheen, NAPL droplets, 25-30 per inch	24'2"-24'3": pinhole diameter responses, 0-5 per inch 24'3"-24'5": pinhole diameter responses, 30 per inch 24'5"-24'6": pinhole diameter responses, 0-5 per inch 24'6"-24'8": pinhole diameter responses, 50 per inch 24'8"-26'7": pinhole diameter responses, 5-10 per inch	at 24'4": 1 - 0.25" diameter response		24'0": 183.9 ppm 24'6": 258.7 ppm		
25	25'1"-25'9": pinhole-0.5" diameter responses, 5-10 per inch 25'9"-26'1": pinhole-0.25" diameter responses, 5-10 per inch	25'1"-25'11": stained with sheen, NAPL droplets, 15-20 per inch 25'11"-26'4": stained with sheen, NAPL droplets, 25-30 per inch	at 25'1": No response			25'0": 394.3 ppm 25'6": 347.7 ppm		
26	26'1"-26'6": 25% coverage 26'6"-26'7": 1 pinhole diameter response	26'4"-26'7": stained with sheen, NAPL droplets, 10-15 per inch				26'0": 406 ppm 26'6": 299.1 ppm		

NN6-10A

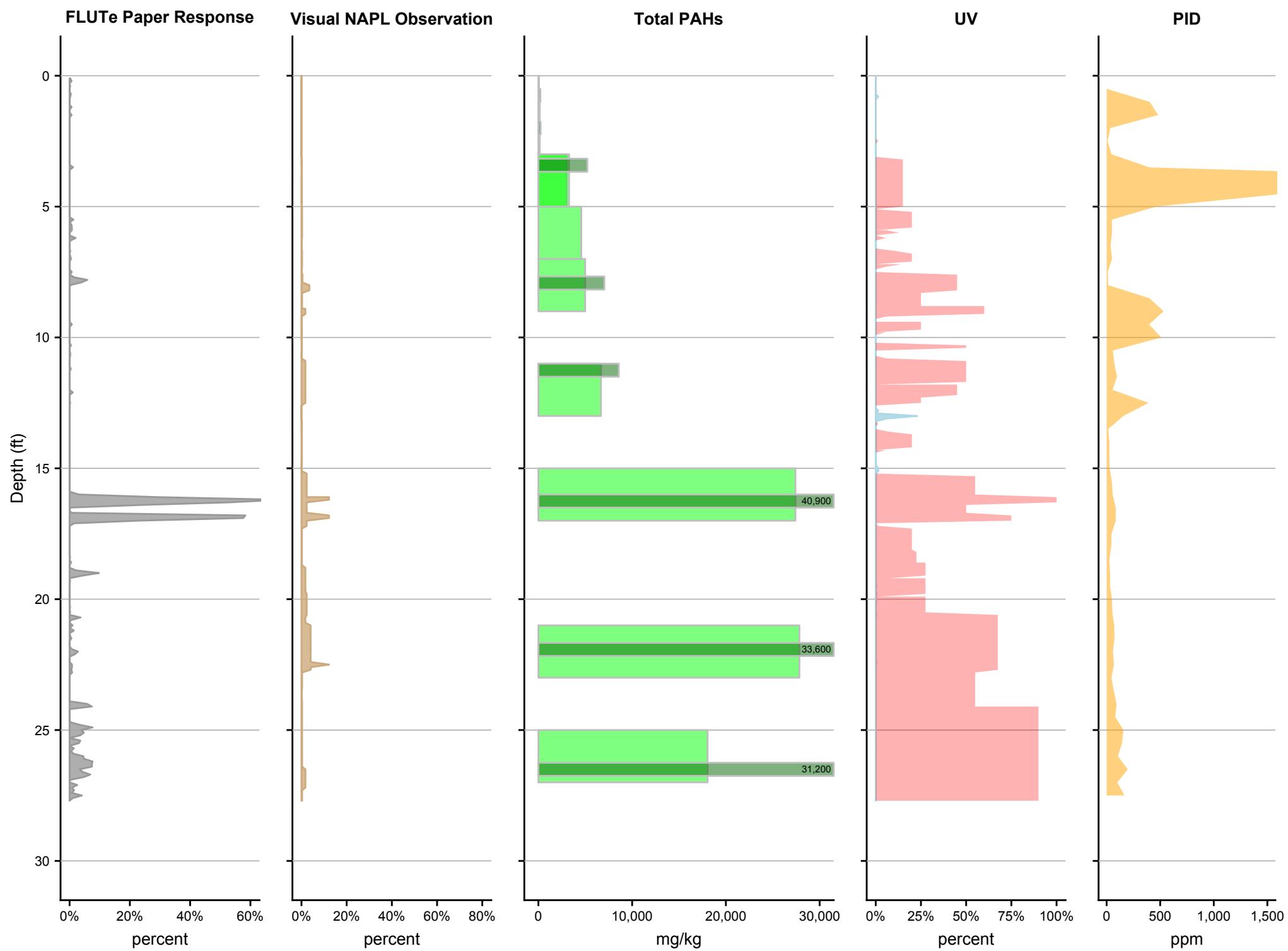


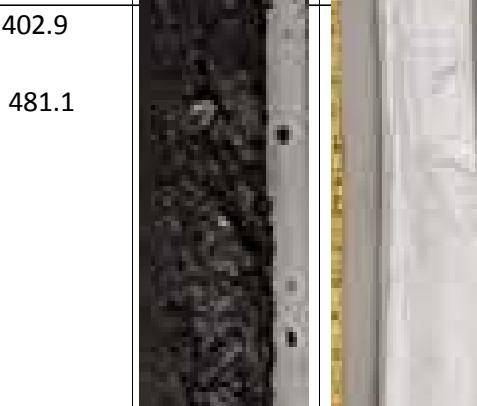
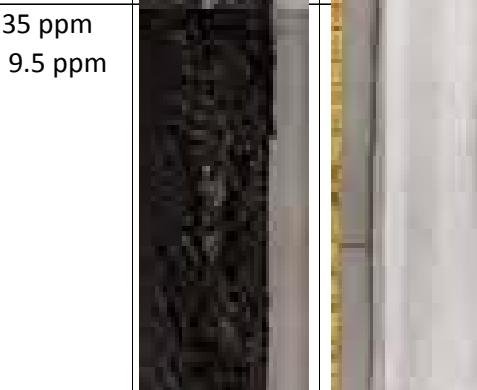
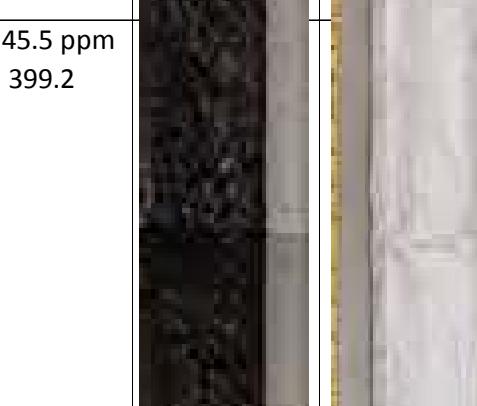
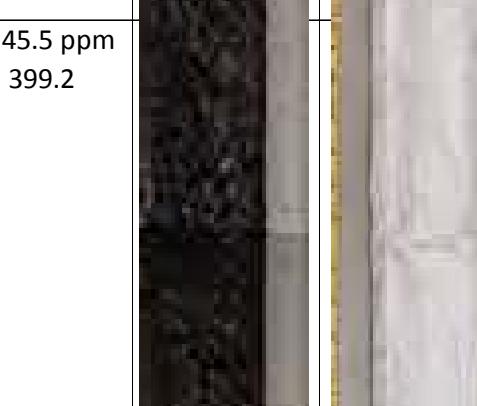
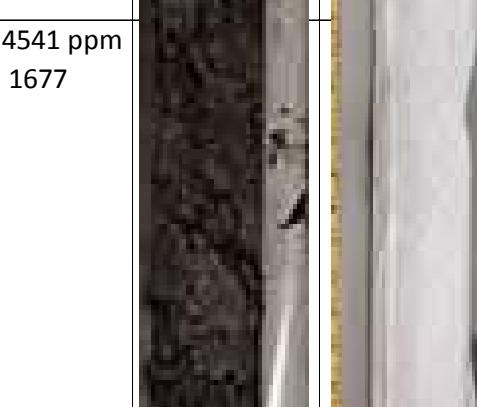
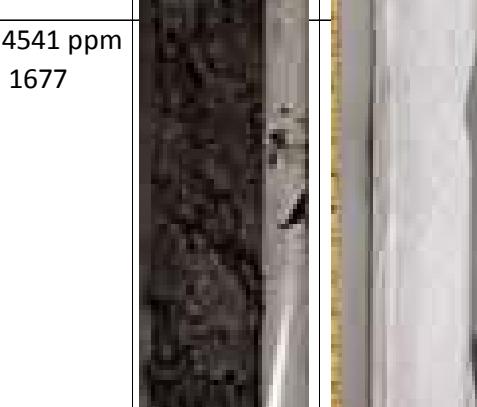
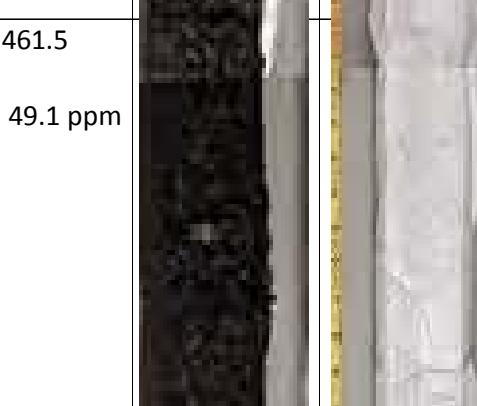
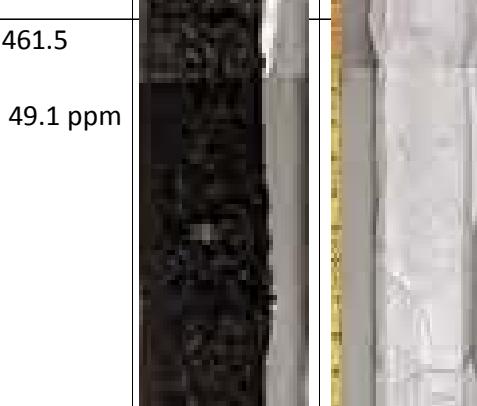
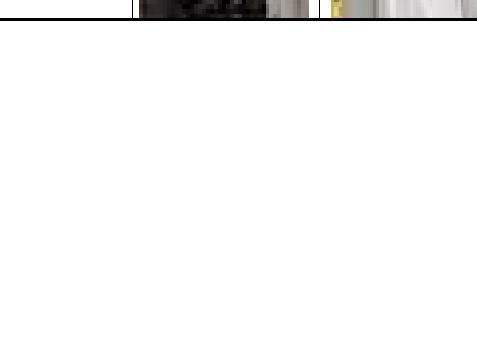
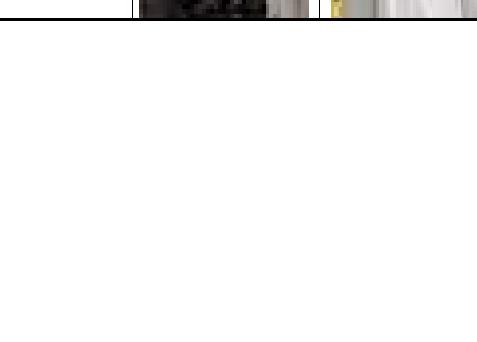
LOCATION: NN6-10a DATE: 2/6/2018 TIME: 13:55 LOGGED BY: D. Burge, H. Cannarella DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 22'2" NORTHING/EASTING: 718614.56, 718614.56 DEPTH TO TOP OF SEDIMENT: 2.4	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-5'2": No response	0'0"-0'1": None 0'1"-1'5": stained without sheen	0'0"-0'3": No response at 0'3": 1 - pinhole diameter response 0'3"-0'6": No response at 0'6": 1 - pinhole diameter response 0'6"-0'8": No response 0'8"-0'9": 5 - pinhole diameter responses 0'9"-1'0": No response	0'0"-4'6": No response	0'0"-0'1": olive gray-brown, very soft, wet silt 0'1"-0'4": dark gray, very soft, wet silt with trace clay at 0'3": 0.5" diameter shell 0'4"-1'2": dark gray, soft, wet silt with trace clay at 0'8": 3 - 4.25" diameter shell fragments	0'0": 22.5 ppm 0'6": 19.1 ppm		
1		1'5"-2'0": stained with sheen	at 1'0": 1 - pinhole diameter response 1'0"-1'7": No response 1'7"-1'9": pinhole-0.125" diameter responses, 2-3 per inch 1'9"-1'10": No response 1'10"-2'1": pinhole diameter responses, 2-5 per inch		1'2"-3'0": dark gray, soft, very moist silt with trace clay 1'3"-1'8": trace to 1/4" diameter shell fragments	1'0": 706.7 ppm 1'6": 100.2 ppm		
2		2'0"-2'5": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 2'5"-2'7": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10 per inch 2'7"-3'0": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch	2'1"-2'7": pinhole-0.125" diameter responses, 5-10 per inch 2'7"-3'0": pinhole diameter responses, 2-5 per inch at 2'7": 1 - 0.125" x 1.5" non-continuous layer			2'0": 474.2 ppm 2'6": 398.3 ppm		
3		3'0"-4'10": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	3'0"-3'5": No response at 3'5": 2 - 2 - pinhole diameter response 3'5"-3'7": No response at 3'7": 3 - pinhole diameter responses 3'7"-3'9": No response 3'9"-3'10": No response at 3'9": 1 - pinhole diameter response 3'10": 1 - pinhole diameter responses 3'10"-3'11": No response at 3'11": 2 pinhole diameter responses 3'11"-4'0": No response		3'0"-6'2": very dark gray, soft, very moist	3'0": 11842 ppm 3'6": 397.5 ppm		
4		4'10"-5'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10 per inch	at 4'0": 1 - 0.25" x 1" response 4'0"-4'8": pinhole diameter responses, 2-4 per inch 4'8"-5'4": pinhole diameter responses, 1-2 per inch	4'6"-6'2": 20% coverage		4'0": 74.4 ppm 4'6": 31.7 ppm		
5	5'2"-5'4": No response at 5'2": 1 pinhole diameter response 5'4"-5'6": pinhole diameter responses, 5 per inch 5'6"-5'7": pinhole-0.125" diameter responses, 20 per inch 5'7"-5'10": pinhole diameter responses, 5-10 per inch 5'10"-5'11": No response at 5'11": 1 pinhole diameter response 5'11"-6'1": No response	5'8"-6'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch	5'4"-5'9": pinhole diameter responses, 2-5 per inch 5'9"-6'1": pinhole diameter responses, 2 per inch			5'0": 24.7 ppm 5'6": 43.5 ppm		
6	at 6'1": 3 pinhole diameter responses 6'1"-6'2": No response at 6'2": 1 pinhole diameter response 6'2"-6'4": No response 6'4"-8'0": No response at 6'4": 1 pinhole diameter response	6'2"-6'7": stained with sheen 6'7"-7'6": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	6'1"-6'7": pinhole diameter responses, 5 per inch 6'7"-6'10": pinhole diameter responses, 10 per inch 6'10"-7'3": pinhole diameter responses, 2-5 per inch	6'2"-6'8": No response 6'8"-6'10": 20% coverage 6'10"-8'0": No response	6'2"-7'2": dark gray, medium soft, very moist	6'0": 46 ppm 6'6": 17.1 ppm		
7		7'6"-7'8": stained with sheen, pinhole-0.25" diameter NAPL droplets 7'8"-8'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 20-25 per inch at 7'10": 0.625" layer	at 7'0": 1 - 0.125" diameter response 7'3"-7'8": pinhole diameter responses, 5-10 per inch 7'8"-8'0": pinhole diameter responses, 2 per inch		7'2"-8'0": gray to dark gray, soft, very moist	7'0": 15.5 ppm 7'6": 18.4 ppm		
8	8'0"-8'6": pinhole diameter responses, 5 per inch 8'6"-9'2": No response	8'0"-8'9": stained with sheen, pinhole-1" NAPL droplets, 30 per inch 8'9"-9'2": stained with sheen, pinhole-0.25" NAPL droplets, 10-15 per inch	8'0"-9'6": pinhole-0.25" diameter responses, 15-20 per inch	8'0"-8'9": 10% coverage 8'9"-10'1": 5% coverage	8'0"-9'2": very dark gray, soft, moist silt	8'0": 48.8 ppm 8'6": 29.4 ppm		
9	9'2"-9'6": 2 pinhole diameter responses 9'6"-10'0": No response	9'2"-10'0.5": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	9'6"-9'7": 2 - 0.25" fluorescent fibrous materials, pinhole-0.125" diameter responses, 15-20 per inch 9'7"-10'0": pinhole-0.125" diameter responses, 20-25 per inch		9'2"-10'0.5": dark gray, soft, moist silt with trace sand	9'0": 14.8 ppm 9'6": 11.6 ppm		

FLUTe Paper Reactions			SAMPLING METHOD: CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 22'2" NORTHING/EASTING: 718614.56, 718614.56 DEPTH TO TOP OF SEDIMENT: 2.4	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
10	10'0"-10'8": pinhole-0.25" diameter responses, 15-20 per inch 10'8"-10'10": No response 10'10"-11'0.5": pinhole-0.5" diameter responses, 15-20 per inch	10'0.5"-11'1": stained with sheen, pinhole-0.25" NAPL droplets, 20-30 per inch	10'0"-10'3": pinhole-0.125" diameter responses, 30 per inch 10'3"-10'11": pinhole-0.125" diameter responses, 5 per inch 10'11"-11'6.5": pinhole-0.125" diameter responses, 10-15 per inch	10'1"-10'7": 10% coverage 10'7"-10'9": 50-60% coverage 10'9"-11'3": No response	10' 0.5"-11' 1": dark gray, soft, moist silt	10'0": 37 ppm 10'6": 85.2 ppm		
11	11'0.5"-11'8": No response 11'8"-11'9": 5 pinhole diameter responses 11'9"-12'5": 5 pinhole diameter responses	11'1"-13'0": stained with sheen, pinhole-0.5" diameter NAPL droplets, 20-30 per inch	11'6.5"-11'7": 0.75" long fibrous material 11'7"-11'11": pinhole-0.125" diameter responses, 25 per inch 11'11"-12'9": pinhole-0.125" diameter responses, 10 per inch	11'3"-12'4": 40% coverage	11' 1"-13' 0": dark gray, soft, moist silt	11'0": 66.8 ppm 11'6": 58.1 ppm		
12	12'5"-13'0": pinhole-0.25" diameter responses, 15 per inch		12'9"-12'10.5": 0.25" long fibrous streaks 12'10.5"-13'0": pinhole-0.125" diameter responses, 5 per inch	12'4"-13'0": 50% coverage	at 12' 7": trace fibers 2" long at 12' 9": trace fibers 2" long	12'0": 84.4 ppm 12'6": 101.5 ppm		
13	13'0"-13'2": 5 pinhole responses, 2-0.125" diameter responses 13'2"-13'6": pinhole - 0.25" diameter responses, 5-15 per inch 13'6"-13'10": pinhole up to 0.75" diameter responses, 10% coverage 13'10"-14'0": pinhole diameter responses, 2-5 per inch	13'0"-13'10": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch 13'10"-14'8": stained with sheen, pinhole diameter NAPL droplets, 20 per inch	13'0"-13'2": pinhole diameter responses, 2-5 per inch 13'2"-13'3": No response at 13'3": 1 - pinhole diameter response 13'3"-14'2": No response	13'0"-13'6": 25% coverage 13'6"-14'4": 75% coverage	13' 0"-17' 2": dark gray, medium soft, moist	13'0": 119.4 ppm 13'6": 76.2 ppm		
14	14'0"-14'3": pinhole - 0.125" diameter responses, 5-15 per inch 14'3"-14'9": No response 14'9"-14'10": No response at 14'9": 3 pinhole diameter responses 14'10"-15'1": No response at 14'10": 1 pinhole diameter response	14'8"-15'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10 per inch	at 14'2": 5 - pinhole diameter responses 14'2"-14'4": No response at 14'4": 3 - pinhole diameter responses 14'4"-14'8": No response at 14'8": 8 - pinhole diameter responses 14'8"-14'9": No response at 14'9": 2 - pinhole diameter responses 14'9"-14'11": No response at 14'11": 2 - pinhole diameter responses 14'11"-15'0": No response	14'4"-14'11": 50% coverage 14'11"-15'7": 20% coverage				
15	15'1"-15'6": No response at 15'1": 4 pinhole diameter responses 15'6"-15'7": 1 - 0.125" x 1" wide response, 1 - 0.25" x 1" response 15'6"-15'7": 5 pinhole diameter response 15'7"-15'8": No response 15'8"-15'10": pinhole - 0.125" diameter responses, 10 per inch 15'10"-15'11": No response at 15'11": 1 - 0.5" x 0.75" response, 1 - 0.25" diameter response 15'11"-16'3": pinhole-0.125" diameter responses, 2-10 per inch	15'11"-16'7": stained with sheen, pinhole-0.25" diameter NAPL droplets, 20-25 per inch	at 15'0": 4 - pinhole diameter responses 15'0"-15'2": No response 15'2"-15'6": pinhole diameter responses, 10 per inch 15'6"-16'3": pinhole diameter responses, 2 per inch	15'7"-16'5": 75% coverage				
16	16'3"-16'5": 1 - 1.25" x 1" response, 1 - 2.25" x 5.125" response, 25% coverage 16'5"-16'7": pinhole diameter responses, 2 per inch 16'7"-16'11": up to 1.5" diameter responses, 10% coverage 16'11"-17'1": pinhole - 0.125" responses, 10 per inch	16'7"-17'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch	16'3"-16'7": No response at 16'7": 1 - pinhole diameter responses 16'7"-16'10": No response 16'10"-17'1": pinhole diameter responses, 2-5 per inch	16'5"-16'8": 25% coverage 16'8"-17'2": 50% coverage	at 16' 1": fibrous material	16'0": 94.4 ppm 16'6": 156.2 ppm		
17	17'1"-17'2": pinhole diameter responses, 2 per inch 17'2"-17'6.5": pinhole-0.25" diameter responses, 10 per inch 17'6.5"-17'11": 40% coverage 17'11"-18'6.5": 45% coverage	17'2"-19'3": stained with sheen, pinhole-0.5" diameter NAPL droplets, 30-35 per inch	17'1"-17'2": 2 - pinhole diameter responses 17'2"-17'9": pinhole-0.125" diameter responses, 5-10 per inch 17'9"-19'3": 5 - pinhole - 0.125" diameter responses	17'2"-22'2": 50-60% coverage	17' 2"-22' 2": dark gray, soft, moist silt	17'0": 63.3 ppm 17'6": 296.6 ppm		
18	18'6.5"-19'1.5": 60-70% coverage	at 18'3": stained with sheen, 1 - up to 0.25" x 1" oozing NAPL droplet at 18'7": stained with sheen, 1 - up to 1.5" x 1" NAPL droplet						
19	19'1.5"-19'3": 20 pinhole-0.5" diameter responses 19'3"-19'5": 70% coverage 19'5"-19'10.5": pinhole diameter up to 1.25" x 0.5" responses, 15-20 per inch 19'10.5"-20'1": pinhole-0.125" diameter responses, 15 per inch	19'3"-19'5": stained with sheen, 30% oozing NAPL coverage 19'5"-21'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 20 per inch	19'3"-19'4": 15 - pinhole-0.125" diameter responses 19'4"-20'4": 0 to 2 - pinhole-0.125" diameter responses					

LOCATION: NN6-10a	SAMPLING METHOD: Vibracore	Comments:						
DATE: 2/6/2018	CORE DIAMETER: 4"							
TIME: 13:55	CORE DEPTH (RECOVERY): 22'2"							
LOGGED BY: D. Burge, H. Cannarella	NORTHING/EASTING: 718614.56, 718614.56							
DRILLING COMPANY: OSI	DEPTH TO TOP OF SEDIMENT: 2.4							
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
20	20'1"-20'7": pinhole - 0.5" responses, 15 per inch 20'7"-20'9": 20% coverage 20'9"-21'0": pinhole-0.125" diameter responses, 10 per inch		20'4"-20'7": pinhole-0.125" diameter responses, 10 per inch 20'7"-21'4.5": 10 - pinhole-0.125" diameter responses		at 20' 2": fibrous hair material at 20' 11": trace wood fragment 0.5" x 0.5"	20'0": 208.7 ppm 20'6": 201.8 ppm		
21	21'0"-21'1.5": pinhole diameter up to 1" x 1" responses, 5 per inch 21'1.5"-21'8": pinhole - 0.125" diameter responses, 2-5 per inch 21'8"-21'11": pinhole-0.75" diameter responses, 10 per inch 21'11"-22'2": 20 - pinhole-0.25" diameter responses	21'0"-22'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15 per inch	21'4.5"-21'6": 1 - 1.25" x 0.5" response 21'6"-22'0": pinhole-0.125" diameter responses, 5 per inch			21'0": 194.1 ppm 21'6": 236 ppm		
22			at 22'0": 1 - pinhole -0.125" diameter response 22'0"-22'2": No response			22'0": 237.2 ppm		

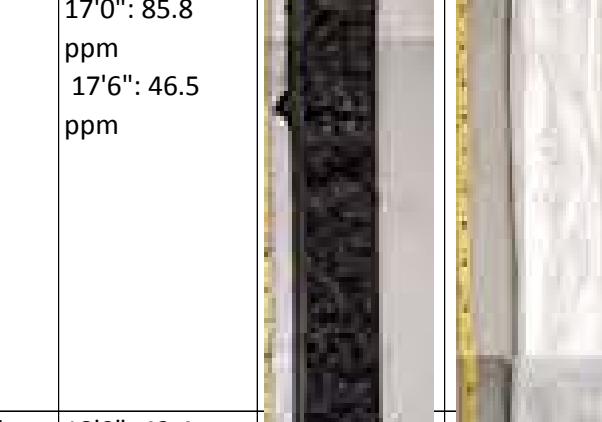
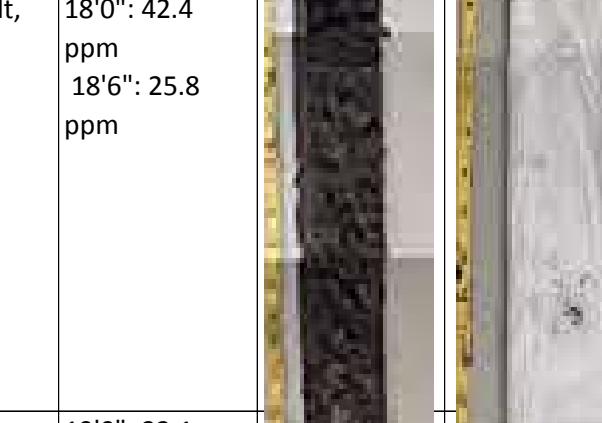
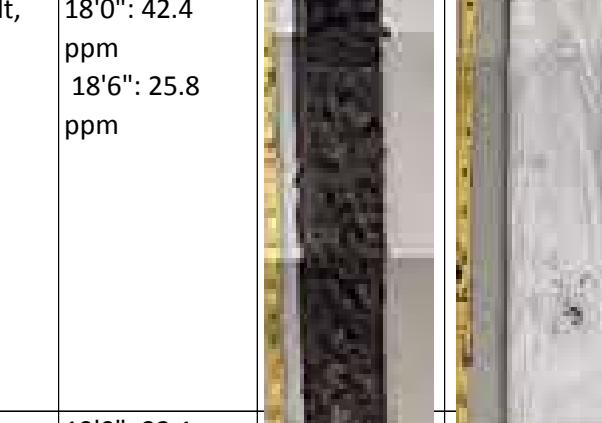
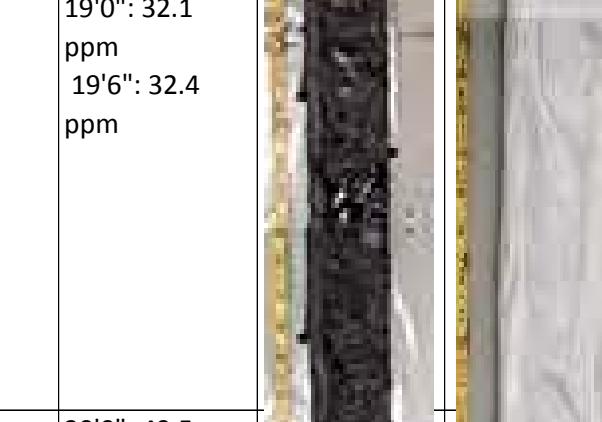
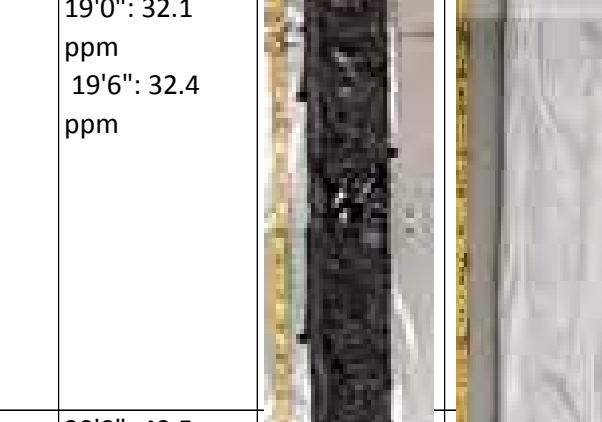
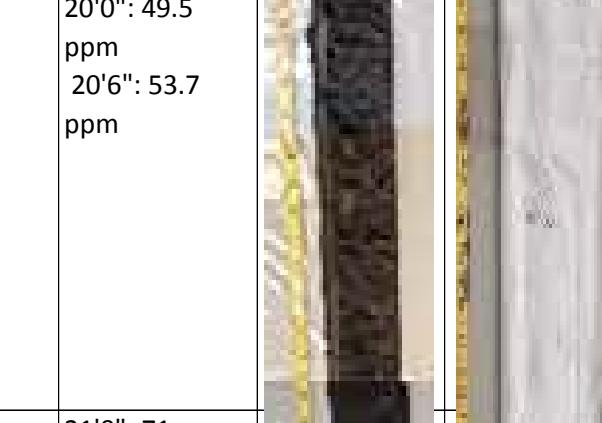
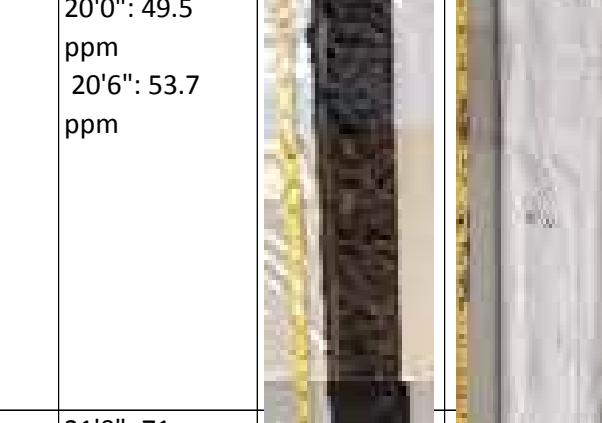
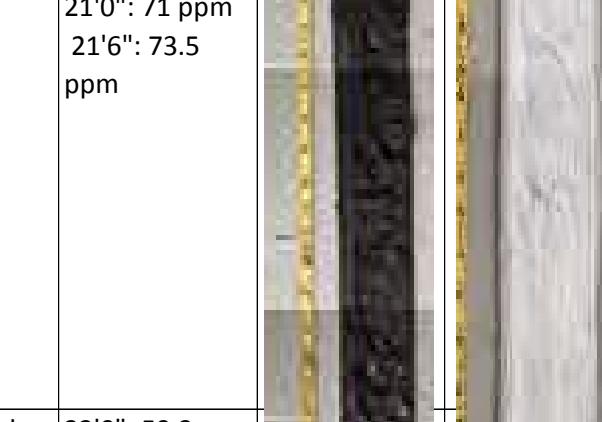
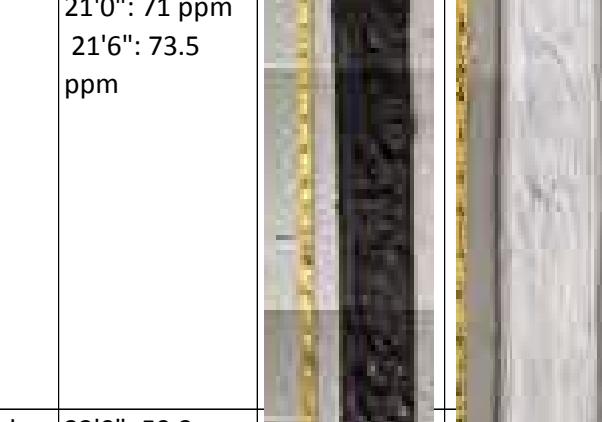
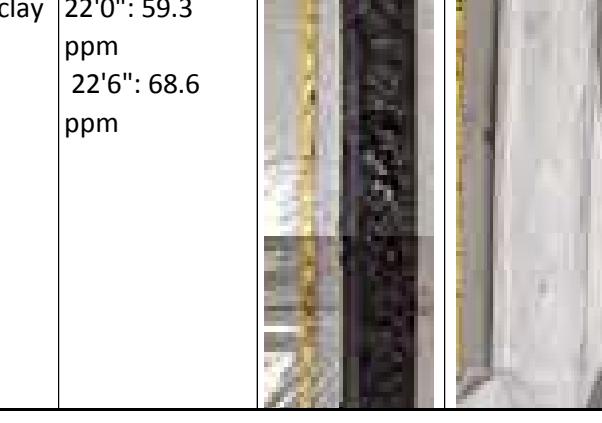
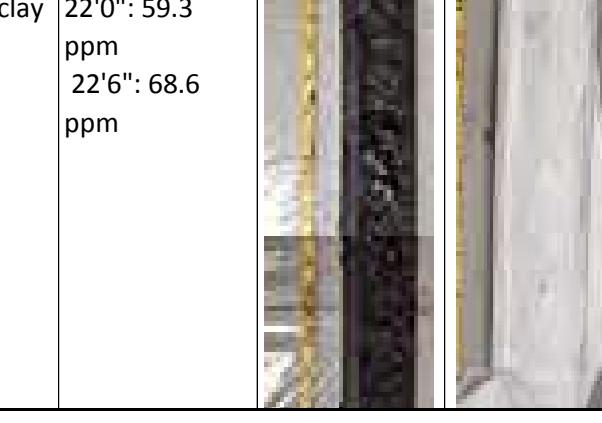
NN6-10A-1



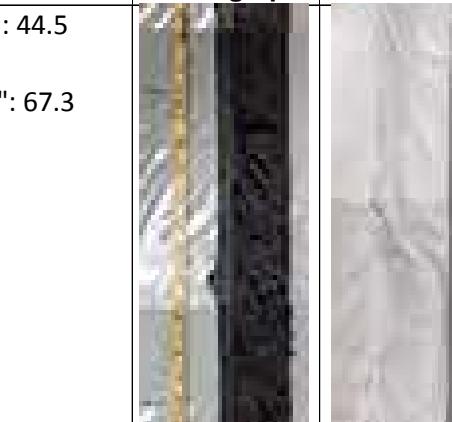
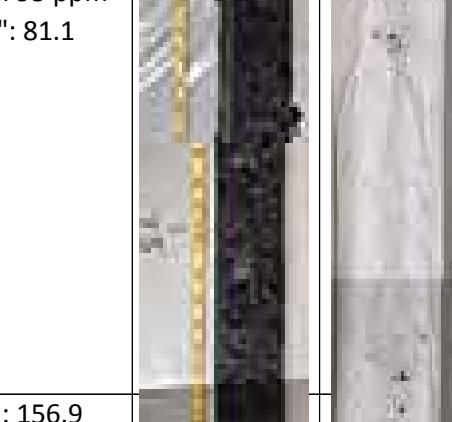
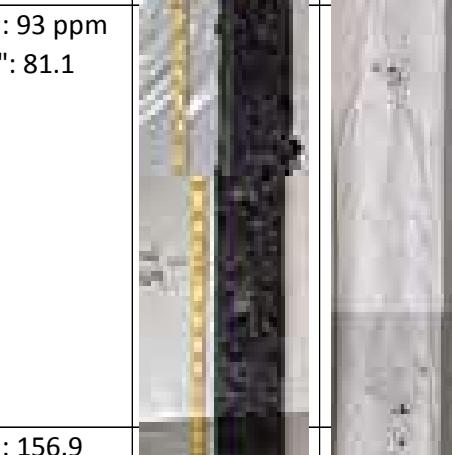
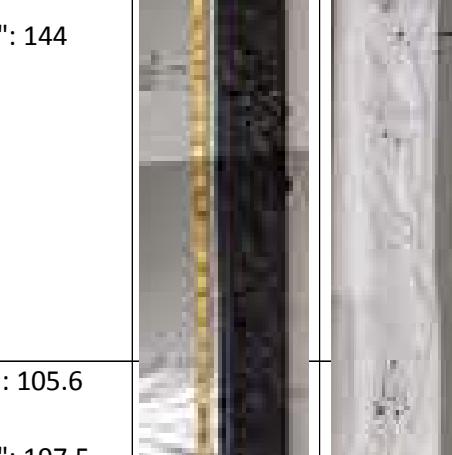
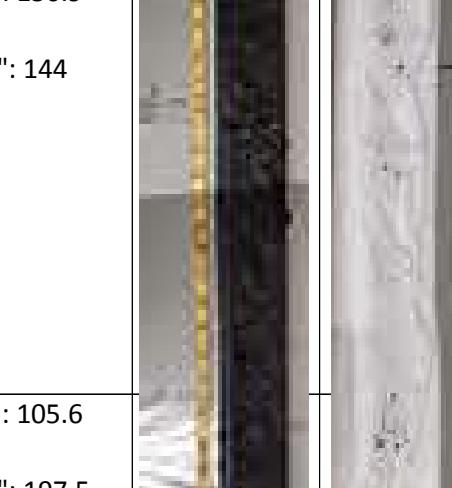
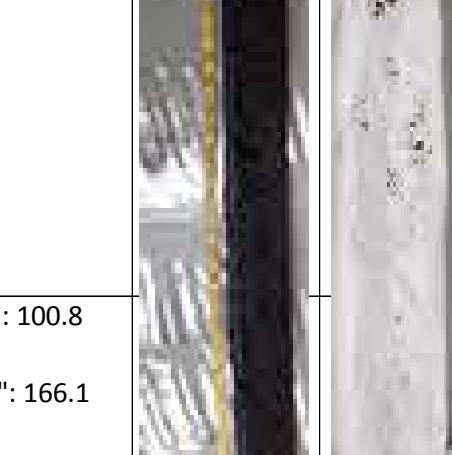
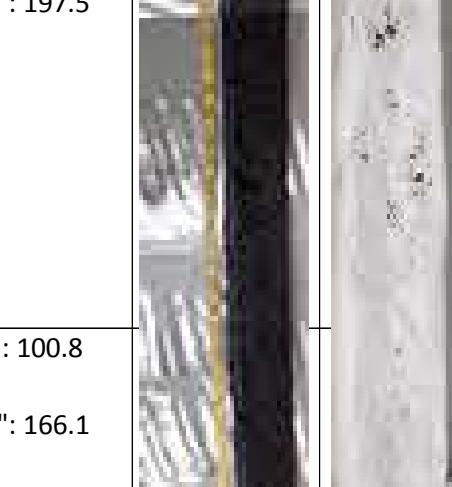
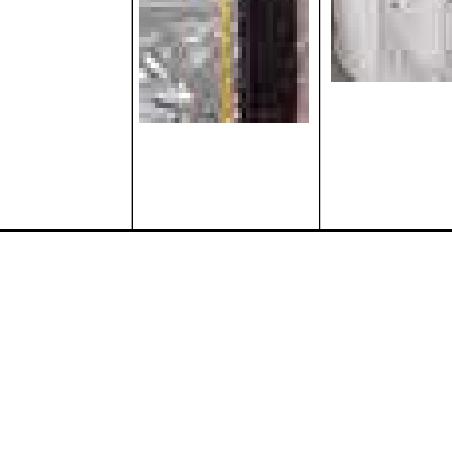
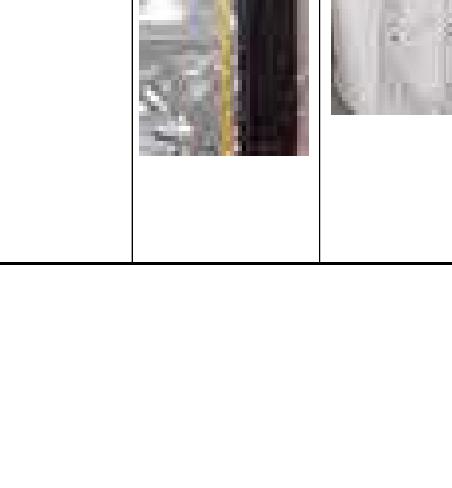
LOCATION: NN6-10a-1 DATE: 3/4/2018 TIME: 10:11 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'8" NORTHING/EASTING: 718609.12, 633859.3 DEPTH TO TOP OF SEDIMENT: 6.4	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-3'5": No response	0'0"-3'0": stained without sheen at 0'8.5": stained without sheen, 1 - 0.25" diameter sheen	0'0"-2'3": pinhole diameter responses, 0-5 per inch at 0'9": 1 - 0.25" response (shell fragment)	0'0"-2'6": No response	0' 0"-2' 3": olive gray, soft, moist silt, shell fragments throughout at 0' 9": shell fragment	0'6": 0.2 ppm		
1						1'0": 402.9 ppm 1'6": 481.1 ppm		
2		at 2'8": stained without sheen, 1 - 0.25" diameter sheen	2'3"-3'0": pinhole diameter responses, 5-10 per inch	at 2'6": 1 - 0.25" diameter response 2'6"-2'7": No response at 2'7": 1 - pinhole diameter response 2'7"-3'3": No response	2' 3"-3' 0": light olive gray, soft, wet silt at 2' 3": very fine fibrous material	2'0": 35 ppm 2'6": 9.5 ppm		
3	3'5"-3'6": 12 pinhole diameter responses 3'6"-5'5": No response	3'0"-5'0": stained with sheen 3'2"-3'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 3'10"-5'0": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch	3'0"-5'0": pinhole diameter responses, 10-15 per inch	3'3"-5'0": 10 -20%	3' 0"-5' 0": dark gray, soft, wet silt	3'0": 45.5 ppm 3'6": 399.2 ppm		
4						4'0": 4541 ppm 4'6": 1677 ppm		
5	at 5'5.5": 6 pinhole diameter responses 5'5.5"-5'9": No response at 5'9": 1 pinhole diameter response 5'9"-6'11": No response	5'0"-6'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch	5'0"-7'4": pinhole diameter responses, 25-30 per inch	5'0"-5'3": No response 5'3"-5'9": 15 -25% 5'9"-5'11": No response at 5'11": 1 - 0.50" diameter response 5'11"-6'0": No response	5' 0"-8' 2": dark gray, soft, moist silt	5'0": 461.5 ppm 5'6": 49.1 ppm		

LOCATION: NN6-10a-1 DATE: 3/4/2018 TIME: 10:11 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'8" NORTHING/EASTING: 718609.12, 633859.3 DEPTH TO TOP OF SEDIMENT: 6.4	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
6	6'11"-7'5": No response at 6'11": 1 pinhole diameter response	6'3"-6'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 6'8"-7'4": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch		at 6'0": 1 - 0.125" partial layer 6'0"-6'3": No response at 6'3": 1 - 0.50" diameter response 6'3"-6'8": No response at 6'8": 2 - 0.50" diameter responses 6'8"-6'9": No response at 6'9": 1 - 0.25" diameter response 6'9"-7'1": 15-25% coverage		6'0": 49.9 ppm 6'6": 37.4 ppm		
7	7'5"-7'8": No response at 7'5": 1 pinhole diameter response 7'8"-7'10": 10 pinhole diameter responses 7'8"-7'10": 6 - 0.125" responses 7'10"-8'2": No response	7'4"-7'7": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 7'7"-8'0": stained with sheen, pinhole-0.125" diameter NAPL droplets, 25-30 per inch	7'4"-8'2": pinhole diameter responses, 15-20 per inch	7'1"-7'2": No response at 7'2": 1 - 0.50-1.00" response 7'2"-7'2.5": No response at 7'2.5": 1 - 0.50-1.00" response 7'2.5"-7'4": No response at 7'4": 1 - 0.25-0.75" response 7'4"-7'7": No response 7'7"-8'2": 40-50% coverage		7'0": 50.6 ppm 7'6": 11.3 ppm		
8	8'2"-8'11": No response at 8'2": 3 pinhole diameter responses 8'11"-9'0": No response at 8'11": 3- 0.125" responses	8'0"-8'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 25-30 per inch 8'2"-8'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch 8'11"-9'1": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch	8'2"-8'7": pinhole diameter responses, 30-40 per inch 8'7"-13'2": pinhole diameter responses, 10-15 per inch	8'2"-8'10": 25% coverage 8'10"-9'1": 60% coverage	8' 2"-10' 0": dark gray, medium soft, moist silt 8' 8.5"-8' 9.5": very loose, wet silt, trace fine sand	8'0": 14.4 ppm 8'6": 399.5 ppm		
9	9'0"-10'11": No response at 9'0": 1 pinhole diameter response	9'1"-10'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch		9'1"-9'2": No response at 9'2": 1 - 0.25" diameter response 9'2"-9'3": No response at 9'3": 1 - 0.50" diameter response 9'3"-9'4.5": No response at 9'4.5": 2 - 0.25" diameter responses 9'4.5"-9'5": No response 9'5"-9'8": 25% coverage 9'8"-9'9": No response at 9'9": 1 - 0.25" response, 1-0.5" response 9'9"-10'3.5": No response		9'0": 532.3 ppm 9'6": 396.2 ppm		
10	10'11"-11'0": No response at 10'11": 1 pinhole diameter response	10'3"-10'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch 10'6"-10'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch 10'11"-12'6": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per		10'3.5"-10'4.5": 50% coverage 10'4.5"-10'10": No response at 10'10": 1 - 0.50" diameter response 10'10"-10'11": No response at 10'11": 1 - 0.50" diameter response 10'11"-11'8": 50% coverage	10' 0"-11' 2": olive gray, firm, moist silt	10'0": 510.1 ppm 10'6": 58.2 ppm		

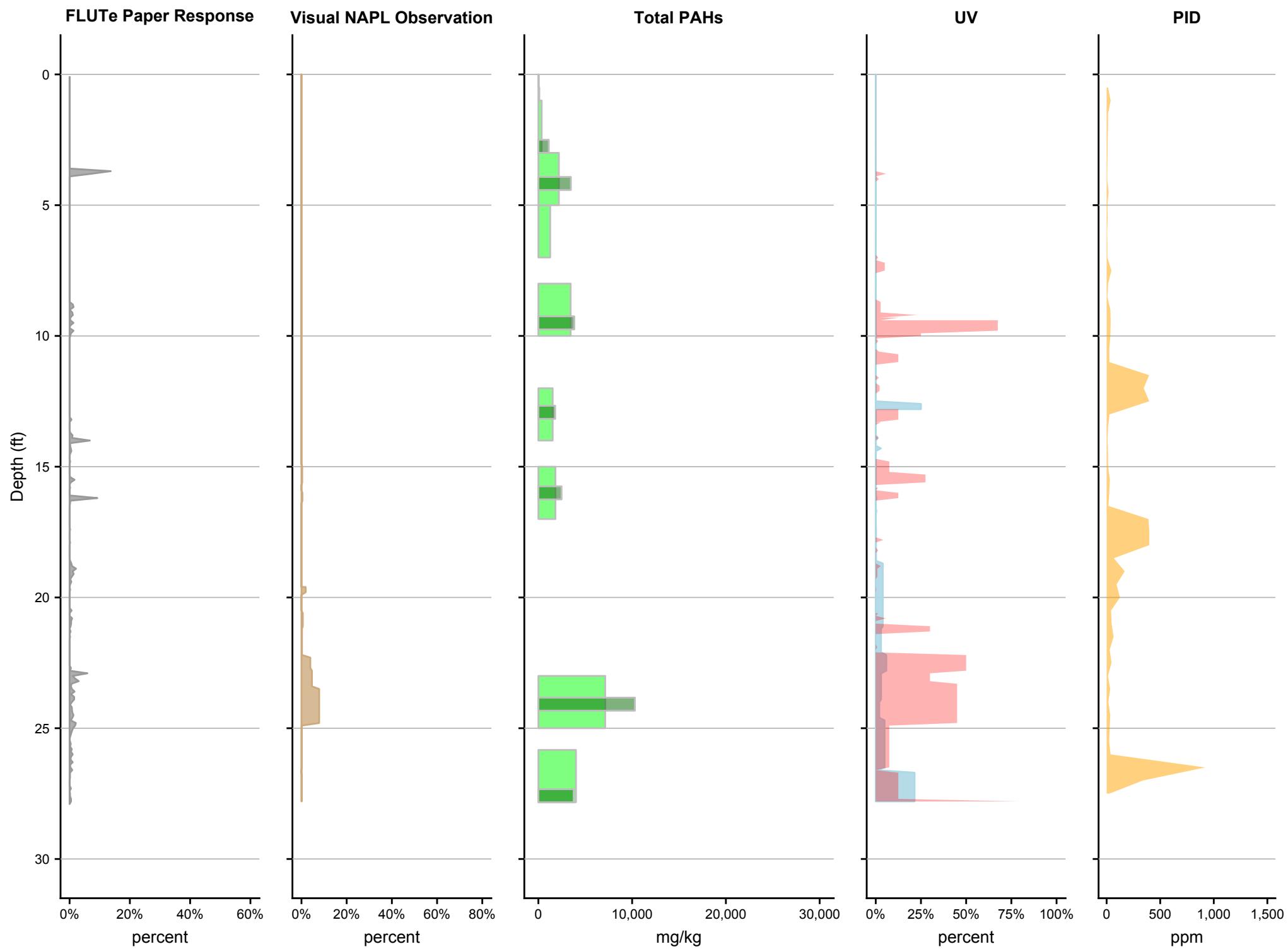
LOCATION: NN6-10a-1 DATE: 3/4/2018 TIME: 10:11 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'8" NORTHING/EASTING: 718609.12, 633859.3 DEPTH TO TOP OF SEDIMENT: 6.4	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11	11'0"-11'2": 15 pinhole diameter responses 11'2"-11'4": No response at 11'4": 3 pinhole diameter responses 11'4"-11'7": No response at 11'7": 1 pinhole diameter response 11'7"-11'8.5": No response at 11'8.5": 1 pinhole diameter response 11'8.5"-12'1": No response			11'8"-11'10": No response 11'10"-12'3": 40 -50% coverage	11' 2"-12' 6": dark gray, firm, moist silt	11'0": 72.7 ppm 11'6": 97.2 ppm		
12	at 12'1": 5 pinhole diameter responses 12'1"-15'8": No response	12'6"-13'2": stained with sheen	at 12'10": 1 - 0.25" response	12'3"-12'6": 25% coverage 12'6"-13'4": No response	12' 6"-13' 2": olive gray, firm, moist silt	12'0": 56.1 ppm 12'6": 392.6 ppm		
13		13'2"-13'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch 13'8"-14'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch	at 13'0": 1 - 1.00" response at 13'1": 1 - 0.50" response 13'2"-18'2": pinhole diameter responses, 25-30 per inch	at 13'4": 1 - 0.25" diameter response 13'4"-13'7": No response at 13'7": 1 - 0.25" x 1" response 13'7"-13'8": No response 13'8"-14'2": 15 -25%	13' 2"-14' 7": dark gray, medium firm, moist silt, trace clay	13'0": 155.7 ppm 13'6": 15.5 ppm		
14		14'8"-15'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch		14'2"-14'4": No response 14'4"-15'4": No response at 14'4": 1 - 0.50" diameter response	14' 7"-15' 2": olive gray, medium firm, moist silt, trace clay	14'0": 25.5 ppm 14'6": 26 ppm		
15	15'8"-15'11": 10 pinhole diameter responses 15'11"-16'1.5": 3 - 0.125" responses 15'11"-16'1.5": 12 pinhole diameter responses	15'2"-16'1.5": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch	at 15'0": 1 - 0.25" response at 15'1": 1 - 0.25" response	15'4"-16'1": 50 -60% coverage	15' 2"-18' 2": dark gray, medium firm, moist silt, trace clay	15'0": 28.5 ppm 15'6": 48.7 ppm		
16	16'1.5"-16'4": 75% coverage 16'4"-16'9": 12 pinhole diameter responses 16'4"-16'9": 6 - 0.125" responses 16'4"-16'9": 2 - 0.25" responses 16'9"-16'11": 75% coverage 16'11"-17'1": 1 - 0.25" x 0.5" response 16'11"-17'1": 1 - 0.125" x 0.25" response 16'11"-17'1": 2 - 0.125" responses 16'11"-17'1": 12 pinhole diameter responses	16'1.5"-16'2.5": stained with sheen, pooling NAPL 16'2.5"-16'9.5": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch 16'9.5"-16'10.5": stained with sheen, oozing NAPL 16'10.5"-17'3": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch		16'1"-16'4": 100% coverage 16'4"-16'9": 50% coverage 16'9"-17'0": 75% coverage				

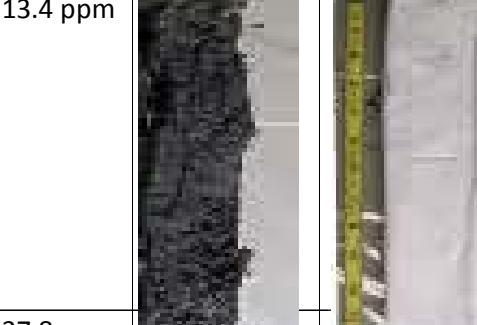
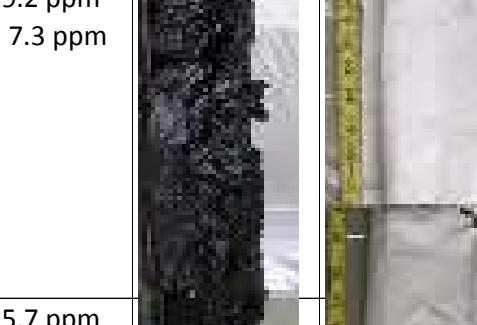
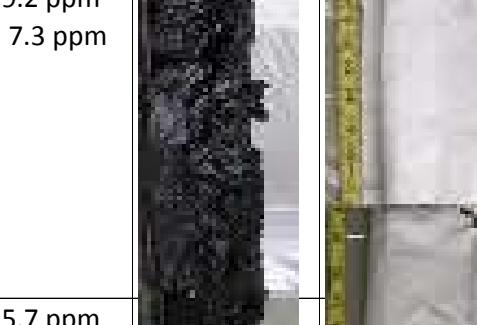
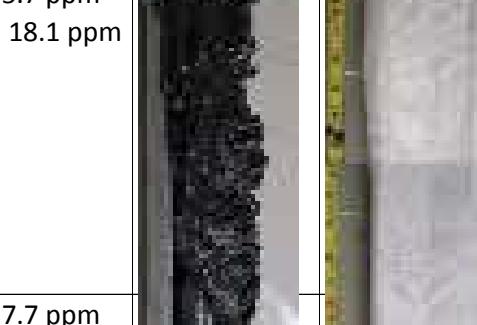
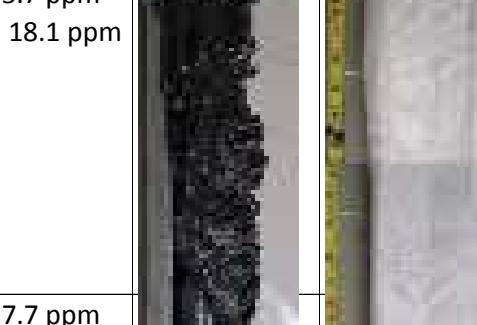
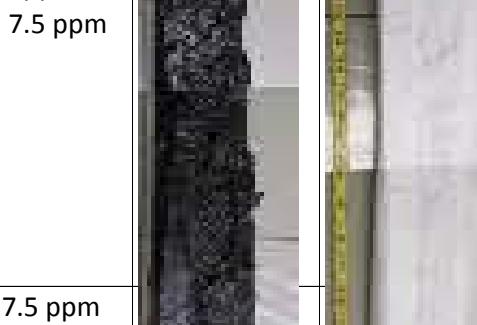
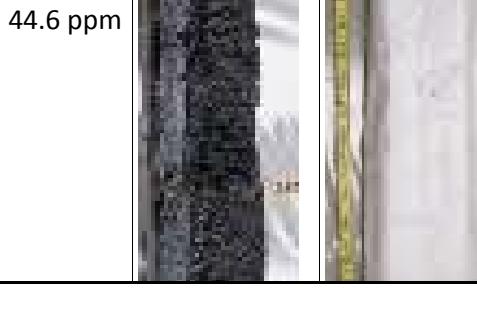
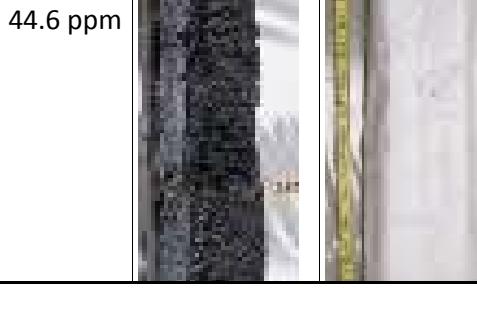
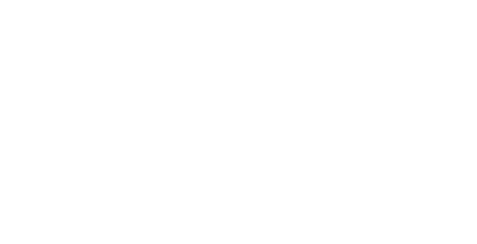
FLUTe Paper Reactions			Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
Depth									
17	17'1"-18'9": No response		17'3"-18'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch		17'0"-17'3": No response at 17'3": 1 - 0.25" diameter response 17'3"-17'4": No response 17'4"-18'2": 15 -25% coverage		17'0": 85.8 ppm 17'6": 46.5 ppm		
18	18'9"-18'10": No response at 18'9": 1 pinhole diameter response 18'10"-19'0": 12 pinhole diameter responses 18'10"-19'0": 8 - 0.125" responses 18'10"-19'0": 5 - 0.25" responses		18'10"-19'10": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch	18'2"-22'8": pinhole diameter responses, 20-25 per inch	18'2"-18'5": 20 -25% coverage 18'5"-18'7": 20 -25% coverage 18'7"-20'7": 25 -30% coverage	18' 2"-22' 8": dark gray, medium stiff, moist silt, trace clay	18'0": 42.4 ppm 18'6": 25.8 ppm		
19	19'0"-20'2": No response		19'10"-20'7": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch	at 19'6": 1 - 0.125" response at 19'9": 1 - 0.125" response at 19'10": 1 - 0.125" response	at 19'3": 1 - 0.25" x 1" response at 19'11": 1 - 0.25" diameter response		19'0": 32.1 ppm 19'6": 32.4 ppm		
20	20'2"-20'4": pinhole diameter responses, 5-10 per inch 20'4"-20'7": No response 20'7"-20'8": 6 - 0.125" responses 20'7"-20'8": 2 - 0.25" responses 20'7"-20'8": 10 pinhole diameter responses 20'8"-20'10": No response 20'10"-21'0": pinhole diameter responses, 5-10 per inch		20'7"-21'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch	at 20'1": 1 - 0.125" response at 20'7": 1 - 0.125" response	20'7"-22'8": 60 -75% coverage		20'0": 49.5 ppm 20'6": 53.7 ppm		
21	21'0"-21'2": No response 21'2"-21'6": pinhole diameter responses, 0-5 per inch 21'6"-21'9": No response 21'9"-22'2": pinhole diameter responses, 5-10 per inch		21'0"-22'8": stained with sheen, pinhole-0.25" diameter NAPL droplets, 30-35 per inch 21'10"-22'1": stained with sheen, oozing NAPL in addition to the NAPL droplets		at 21'10": 1 - 0.25" diameter response		21'0": 71 ppm 21'6": 73.5 ppm		
22	22'2"-22'6": No response 22'6"-22'11": pinhole diameter responses, 5-10 per inch 22'11"-24'0": No response		at 22'6": stained with sheen, oozing NAPL in addition to the NAPL droplets 22'8"-23'5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch	at 22'5": 1 - 0.125" response 22'8"-24'8": pinhole diameter responses, 15-20 per inch	22'8"-24'1": 50 -60% coverage	22' 8"-27' 8": dark gray, firm, moist silt, some clay	22'0": 59.3 ppm 22'6": 68.6 ppm		

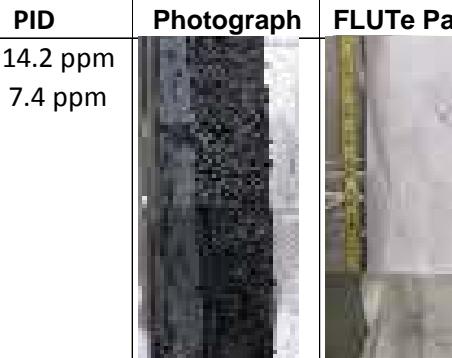
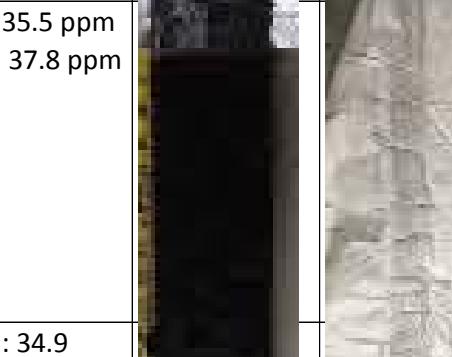
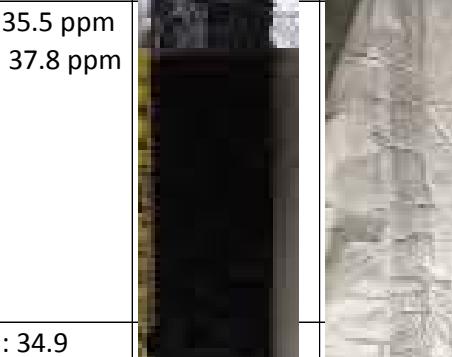
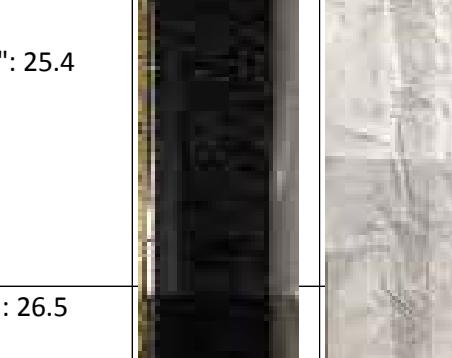
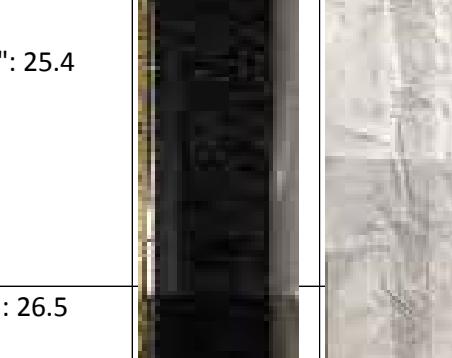
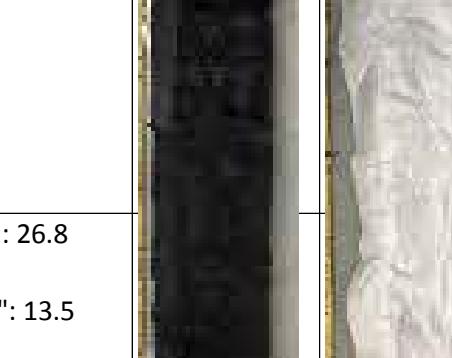
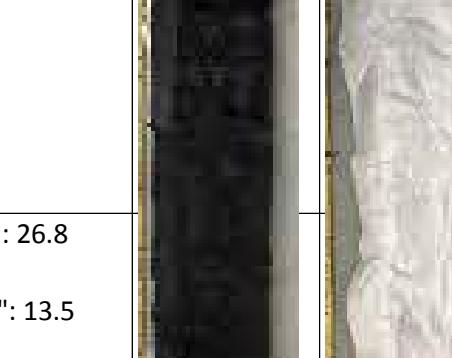
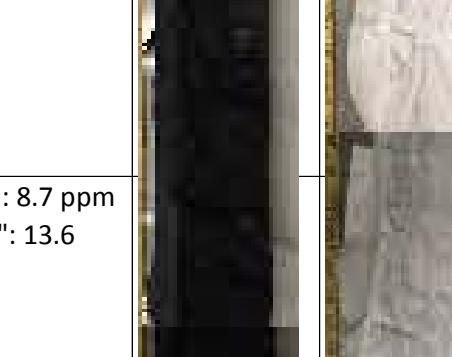
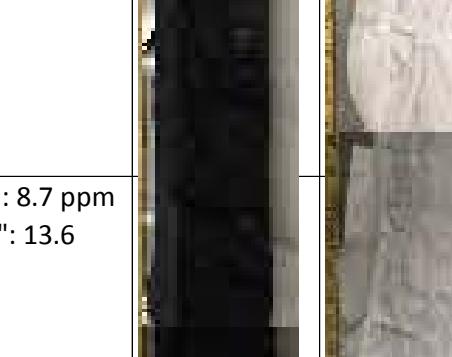


LOCATION: NN6-10a-1 DATE: 3/4/2018 TIME: 10:11 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'8" NORTHING/EASTING: 718609.12, 633859.3 DEPTH TO TOP OF SEDIMENT: 6.4	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
23		23'5"-23'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 23'11"-26'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch			23' 8"-23' 9": 3 - <0.125" thick red bands	23'0": 44.5 ppm 23'6": 67.3 ppm		
24	24'0"-24'1": 20 pinhole-0.125" diameter responses 24'0"-24'1": 3 - 0.25" responses 24'1"-24'3": No response 24'3"-24'8": No response at 24'3": 1 pinhole diameter response 24'8"-24'9": No response at 24'8": 2 pinhole diameter responses 24'9"-25'2": pinhole diameter-0.25" responses, 5-10 per inch		24'8"-25'6": pinhole diameter responses, 0-5 per inch	24'1"-27'8": 80 -100% coverage	at 24' 0": 0.125" x 2" organic matter (stick)	24'0": 93 ppm 24'6": 81.1 ppm		
25	25'2"-25'3.5": No response 25'3.5"-25'5": pinhole-0.125" diameter responses, 0-5 per inch 25'5"-25'7": No response 25'7"-26'0": pinhole diameter responses, 5-10 per inch		25'6"-26'1": pinhole diameter responses, 15-20 per inch		at 25' 4": fine fibrous material	25'0": 156.9 ppm 25'6": 144 ppm		
26	26'0"-26'10": pinhole-0.50" diameter responses, 5-10 per inch 26'10"-26'11": 15 pinhole diameter responses 26'11"-27'0": No response	26'6"-27'3": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch	26'1"-27'8": 0 - pinhole diameter responses, 0-5 per inch		at 26' 10": very fine fibrous material	26'0": 105.6 ppm 26'6": 197.5 ppm		
27	27'0"-27'8": pinhole diameter responses, 0-5 per inch at 27'1": 1 - 0.25" response at 27'3": 6 - 0.125" responses at 27'5": 1 - 0.125" response at 27'6": 1 - 0.25" response	27'3"-27'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch				27'0": 100.8 ppm 27'6": 166.1 ppm		

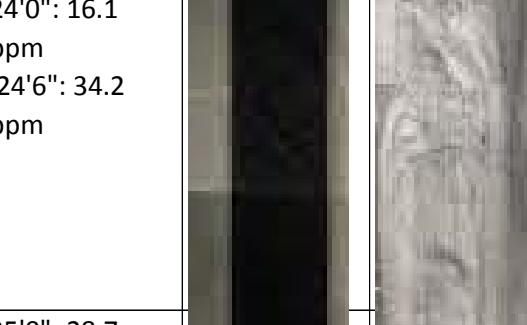
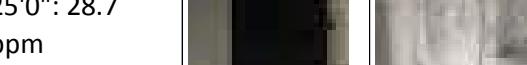
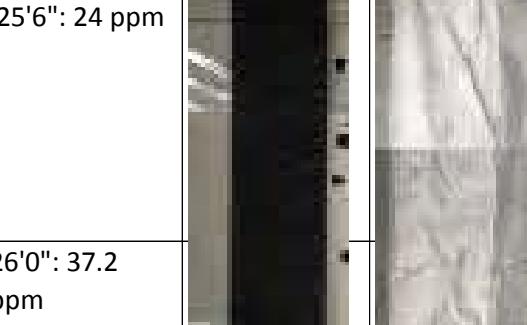
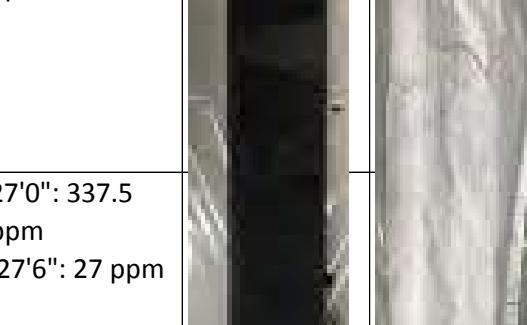
NN6-10A-2



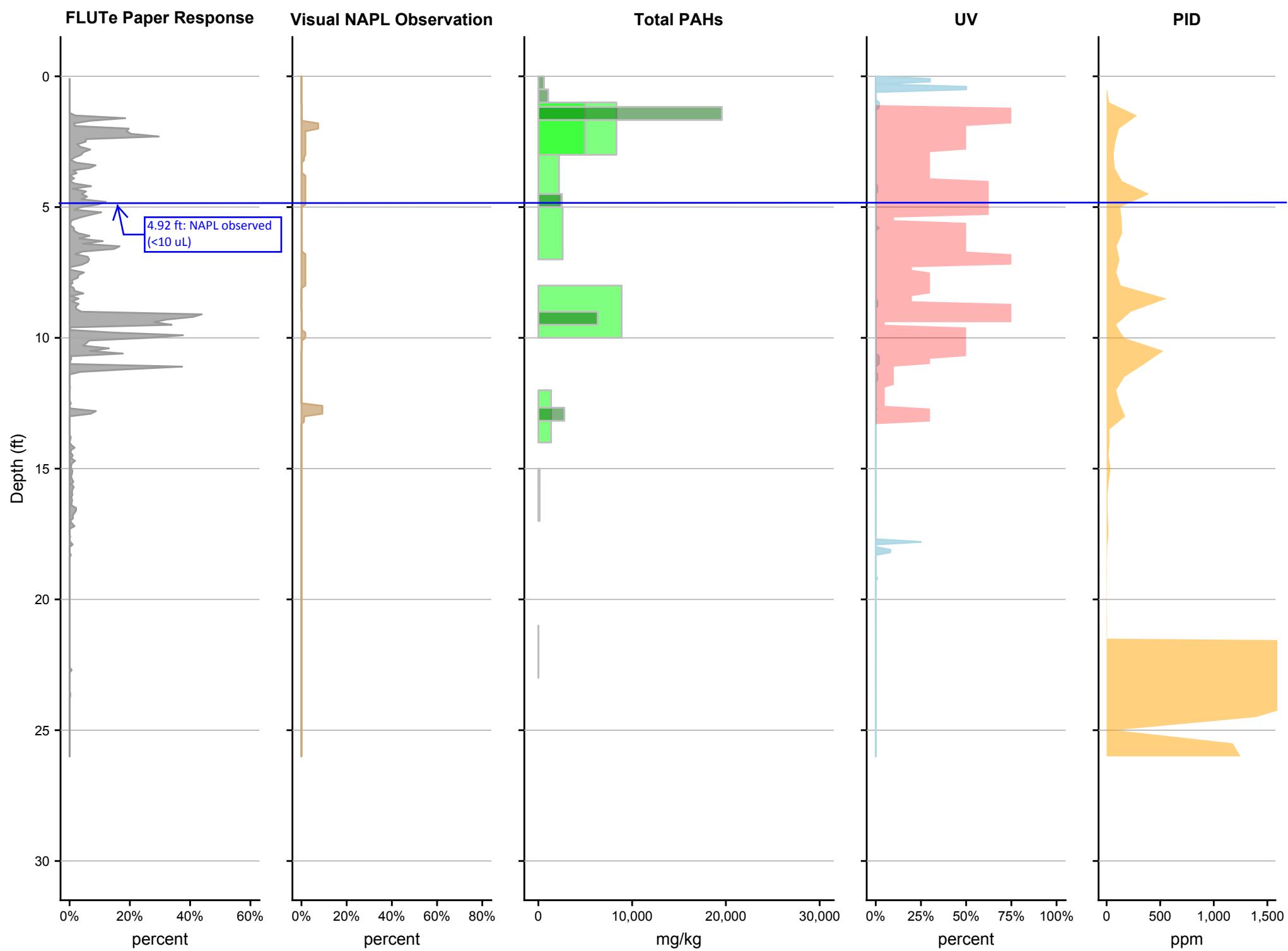
LOCATION: NN6-10a-2 DATE: 3/6/2018 TIME: 13:02 LOGGED BY: D. Burge, E. Emery, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'10" NORTHING/EASTING: 718589.99, 633976.56 DEPTH TO TOP OF SEDIMENT: 6.5	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-9'7": No response	0'0"-1'8": stained without sheen	0'0"-1'4": No response	0'0"-3'9": No response	0' 0"-1' 8": olive gray, very soft, wet silt, trace clay	0'6": 13.4 ppm		
1		1'8"-2'9": stained without sheen	at 1'4": 2 - pinhole diameter responses 1'4"-1'7": No response at 1'7": 1 - pinhole diameter response 1'7"-1'9": No response 1'9"-1'11": pinhole diameter responses, 2 per inch 1'11"-2'5": No response		1' 8"-8' 1": dark gray, very soft, wet silt, trace clay	1'0": 37.8 ppm 1'6": 13.7 ppm		
2		2'9"-8'8": stained with sheen	2'5"-2'7": No response at 2'5": 5 - pinhole diameter responses 2'7"-2'10": pinhole diameter responses, 2 per inch 2'10"-3'1": No response			2'0": 13 ppm 2'6": 10 ppm		
3		at 3'2": stained with sheen, 2 - pinhole diameter NAPL droplets at 3'11": stained with sheen, 2 - pinhole diameter NAPL droplets	3'1"-3'6": pinhole diameter responses, 2-5 per inch 3'6"-4'1": No response	3'9"-4'0": No response at 3'9": 1 - 0.5" diameter response	at 3' 9": trace leaves and twigs	3'0": 9.2 ppm 3'6": 7.3 ppm		
4		at 4'1": stained with sheen, 1 - pinhole diameter NAPL droplet at 4'7": stained with sheen, 1 - pinhole diameter NAPL droplet	4'1"-4'5": pinhole diameter responses, 0-2 per inch 4'5"-4'6": No response at 4'6": 2 - pinhole diameter responses 4'6"-4'10": No response 4'10"-5'2": No response at 4'10": 3 - pinhole diameter responses	4'0"-7'0": No response at 4'0": 5 - 0.125" diameter responses		4'0": 5.7 ppm 4'6": 18.1 ppm		
5			at 5'2": 2 - pinhole diameter responses 5'2"-5'7": No response at 5'7": 2 - pinhole diameter responses 5'7"-6'0": No response			5'0": 7.7 ppm 5'6": 10.3 ppm		
6			6'0"-6'7": pinhole diameter responses, 2-5 per inch 6'7"-6'10": pinhole diameter responses, 0-2 per inch 6'10"-7'7": pinhole diameter responses, 5-10 per inch			6'0": 5 ppm 6'6": 7.5 ppm		
7	7'9"-8'1": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	7'7"-8'2": pinhole diameter responses, 0-2 per inch	7'0"-7'3": No response at 7'0": 1 - 0.25" diameter response 7'3"-7'6": 5% coverage 7'6"-8'3": No response			7'0": 7.5 ppm 7'6": 44.6 ppm		

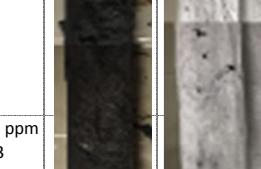
LOCATION: NN6-10a-2 DATE: 3/6/2018 TIME: 13:02 LOGGED BY: D. Burge, E. Emery, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'10" NORTHING/EASTING: 718589.99, 633976.56 DEPTH TO TOP OF SEDIMENT: 6.5	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
8		8'8"-9'9": stained with sheen, pinhole diameter NAPL droplets, 25-30 per inch	8'2"-9'11": pinhole diameter responses, 5-10 per inch	at 8'8": 3 - pinhole diameter responses 8'8"-9": pinhole-0.125" diameter responses, 10-15 per inch	8'1"-8'8": dark gray, soft, wet silt, trace clay 8'8"-9'11": dark gray, soft, moist to wet silt	8'0": 14.2 ppm 8'6": 7.4 ppm		
9	9'7"-9'8.5": No response at 9'7": 2 pinhole diameter responses 9'8.5"-12'11": No response at 9'8.5": 2 pinhole diameter responses	9'9"-11'10": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	9'11"-10'10": pinhole diameter responses, 20-25 per inch	at 9'2": 1 - 1" diameter response at 9'4": 1 - 0.75" diameter response 9'5"-9": 60-75% coverage 9'9"-10'0": 25% coverage	9'11"-10'0": dark gray, soft, moist silt	9'0": 35.5 ppm 9'6": 37.8 ppm		
10			10'10"-11'1": pinhole diameter responses, 0-5 per inch	10'0"-10'3": No response at 10'3": 1 - 0.25" diameter response 10'3"-10'7": No response at 10'7": 1 - 0.125" x 0.5" response 10'7"-10'8": No response 10'8"-11'0": 10-15% coverage	10'0"-11'7": dark gray, medium firm, moist silt	10'0": 34.9 ppm 10'6": 25.4 ppm		
11		11'10"-12'8": stained with sheen	11'1"-17'5": pinhole diameter responses, 10-15 per inch	11'0"-11'7": No response at 11'7": 1 - 0.125" x 0.5" response 11'7"-11'11": No response 11'11"-12'1": 3 - 0.25" diameter responses	11'7"-12'7": olive gray, medium firm, moist silt, trace clay	11'0": 26.5 ppm 11'6": 396.8 ppm		
12	12'11"-13'1": No response at 12'11": 2-3 pinhole diameter responses	12'8"-13'6": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch	12'7"-12'10": 25% coverage	12'1"-12'9": No response 12'9"-13'2": 10-15% coverage	12'7"-13'8": dark gray, medium firm, moist silt, trace clay	12'0": 346.2 ppm 12'6": 397.7 ppm		
13	13'1"-13'11": No response at 13'1": 2 pinhole diameter responses 13'11"-14'0": No response at 13'11": 1 yellowish-brown pinhole diameter response	13'6"-15'0": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch	at 13'11": 3 - 0.125" responses	13'2"-13'4": No response at 13'4": 2 - 0.25" diameter responses 13'4"-13'11": No response at 13'11": 1 - 0.25" diameter response 13'11"-14'10": No response	13'8"-16'7": dark gray, firm, moist silt, trace clay 13'11"-14'0": fine fibrous organic matter	13'0": 26.8 ppm 13'6": 13.5 ppm		
14	14'0"-15'4": No response at 14'0": 1 - 0.125" x 0.375" yellowish brown response		at 14'4": 2 - 0.25" responses	14'10"-15'4": 5-10% coverage	at 14'4": fibrous organic material	14'0": 8.7 ppm 14'6": 13.6 ppm		
15	15'4"-15'6": pinhole-0.125" diameter responses, 5 per inch 15'6"-16'1": No response	15'0"-15'7": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch 15'7"-16'0": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch		15'4"-15'7": 25-30% coverage 15'7"-15'10": No response at 15'10": 1 - 0.25" diameter response 15'10"-16'0": No response		15'0": 14.1 ppm 15'6": 30.7 ppm		

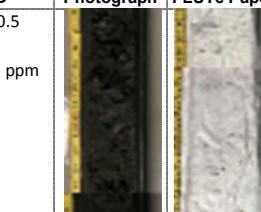
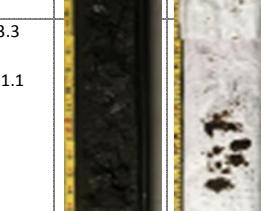
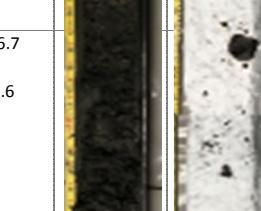
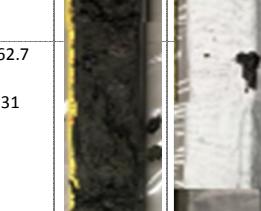
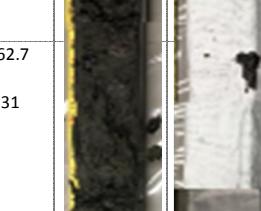
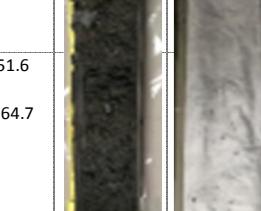
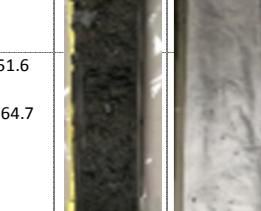
Drill Log Data			SAMPLING METHOD:	Vibracore	Comments:	Ramboll		
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
16	at 16'1": 1 - 0.75" x 0.25" response at 16'1": 10 pinhole diameter responses 16'1"-19'0": No response	16'0"-16'4": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20-25 per inch 16'4"-16'9": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch 16'9"-17'9": stained with sheen	at 16'2": 1 - 0.125" response at 16'8": 1 - 0.125" response	16'0"-16'2": 10-15% coverage 16'2"-17'9": No response	16' 7"-17' 9": olive gray, firm, moist silt, trace clay	16'0": 24.9 ppm 16'6": 17.1 ppm		
17		17'9"-18'8": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch	17'5"-18'8": pinhole diameter responses, 25-30 per inch	17'9"-17'10": 3 - 0.25" diameter responses 17'10"-18'3": No response	17' 9"-18' 8": dark gray, firm, moist silt, trace clay	17'0": 390.5 ppm 17'6": 399.1 ppm		
18		18'8"-19'7": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	18'8"-21'1": pinhole-0.125" diameter responses, 15-20 per inch	at 18'3": 1 - 0.25" diameter response 18'3"-18'8": pinhole diameter responses, 10-15 per inch 18'8"-18'9": No response at 18'9": 2 - 0.25" diameter responses 18'9"-18'10": No response 18'10"-19'2": 5 - pinhole-0.25" diameter responses	18' 3"-18' 4": fibrous material 18' 8"-19' 9": dark gray, medium soft, moist silt, trace clay	18'0": 398.2 ppm 18'6": 67.1 ppm		
19	at 19'0": 1 pinhole diameter response 19'0"-23'6": No response	19'7"-19'9": stained with sheen, pinhole-0.50" diameter NAPL droplets, 0-2 per inch 19'9"-20'7": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch		19'2"-19'8": No response at 19'8": 1 - 0.125" diameter response 19'8"-20'7": No response	19' 9"-20' 7": dark olive gray, medium soft, moist silt, trace clay	19'0": 168.9 ppm 19'6": 92.5 ppm		
20		20'7"-21'1": stained with sheen, pinhole-0.25" diameter NAPL droplets, 2-5 per inch		at 20'7": 1 - 0.25" diameter response 20'7"-20'9": No response at 20'9": 1 - 0.5" diameter response 20'9"-21'1": No response	20' 7"-22' 10": dark olive gray, medium soft to firm, moist silt, trace clay	20'0": 124.5 ppm 20'6": 41.9 ppm		
21		21'1"-22'4": stained with sheen, pinhole-0.25" diameter NAPL droplets, 0-2 per inch	21'1"-22'3": trace fibrous material up to 0.33" 21'1"-22'3": pinhole-0.125" diameter responses, 10-15 per inch	21'1"-21'4": 30% coverage at 21'4": 2 - 0.25" diameter responses 21'4"-21'11": No response at 21'11": 1 - 0.25" x 0.125" response 21'11"-22'2": No response				
22		22'4"-22'10": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5 per inch 22'10"-23'6": stained with sheen, pinhole-0.50" diameter NAPL droplets, 2-5 per inch	22'3"-22'10": trace fibrous material up to 0.25" 22'3"-22'10": pinhole-0.125" diameter responses, 20-30 per inch 22'10"-23'11": pinhole-0.125" diameter responses, 10-15 per inch 22'10"-23'11": trace fibrous material up to 0.5"	22'2"-22'10": 50% coverage 22'10"-23'4": 30% coverage	22' 10"-24' 9": dark gray, medium soft to firm, slightly moist silt, trace clay	22'0": 29 ppm 22'6": 45.9 ppm		
23	23'6"-23'10": No response at 23'6": 7 pinhole diameter responses 23'10"-24'0": 10 pinhole diameter responses	23'6"-24'9": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5-10 per inch	23'11"-24'8": pinhole-0.125" diameter responses, 5-10 per inch	23'4"-24'9": 40-50% coverage				

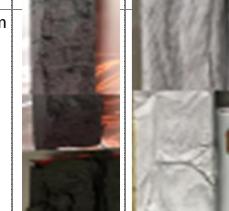
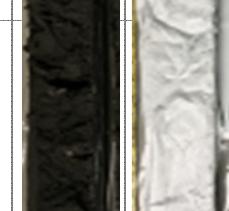
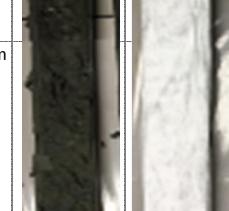
LOCATION: NN6-10a-2 DATE: 3/6/2018 TIME: 13:02 LOGGED BY: D. Burge, E. Emery, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'10" NORTHING/EASTING: 718589.99, 633976.56 DEPTH TO TOP OF SEDIMENT: 6.5	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
24	24'0"-24'1": No response 24'1"-24'3": 15 pinhole diameter responses 24'3"-24'4": No response at 24'4": 2 pinhole diameter responses 24'4"-24'7": No response at 24'7": 1 pinhole diameter response 24'7"-27'10": No response	24'9"-26'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch	24'8"-26'6": pinhole-0.125" diameter responses, 20-25 per inch	24'9"-26'6": 5-10% coverage	24' 9"-26' 6": dark olive gray, medium soft to firm, slightly moist silt, trace clay	24'0": 16.1 ppm 24'6": 34.2 ppm		
25						25'0": 28.7 ppm 25'6": 24 ppm		
26		26'6"-26'9": stained without sheen 26'9"-27'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch	26'6"-26'8": No response 26'8"-27'9": pinhole-0.25" diameter responses, 20-30 per inch	26'6"-26'8": No response 26'8"-27'9": 10-15% coverage	26' 6"-26' 9": light gray, firm, trace shell fragments 26' 9"-27' 10": dark olive gray	26'0": 37.2 ppm 26'6": 920.6 ppm		
27			27'9"-27'10": 3 - pinhole diameter responses	27'9"-27'10": 80% coverage		27'0": 337.5 ppm 27'6": 27 ppm		

PR1-4



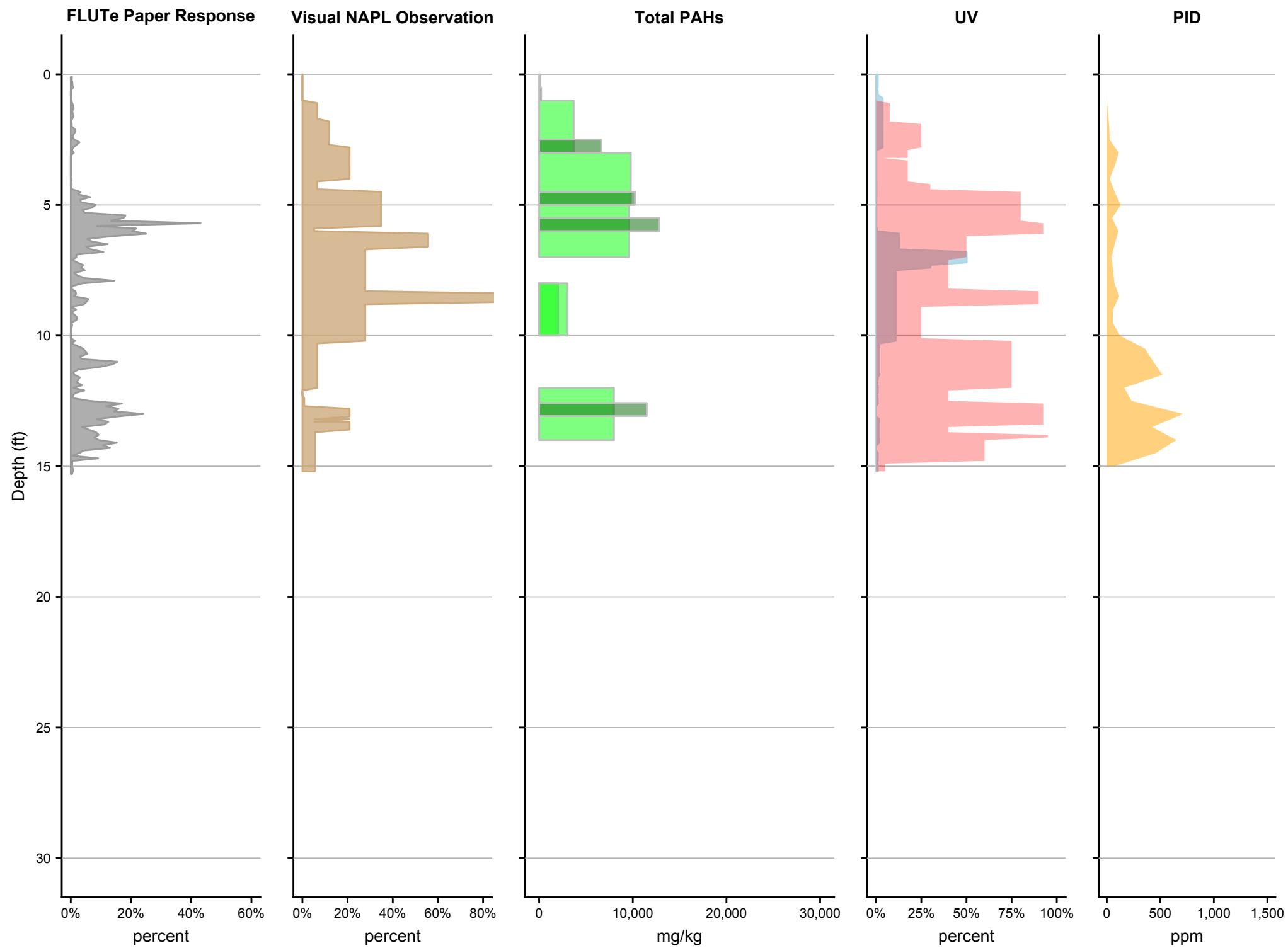
LOCATION: PR1-4 DATE: 2/4/2018 TIME: 10:29 LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'0" NORTHING/EASTING: 718693.54, 633855.75 DEPTH TO TOP OF SEDIMENT: 2.8	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-1'4.5": No response	0'0"-0'9": light sheen 0'9"-1'1": stained with light sheen	0'0"-0'1": No response 0'1"-0'2.5": 30% 0'2.5"-0'5": pinhole diameter responses, 10 per inch 0'5"-0'5.5": 50% 0'5.5"-1'0": pinhole diameter responses, 15-20 per inch at 0'7": thin film response, likely related to plastic shard	0'0"-1'3": No response	0' 0"-0' 1": olive gray, very loose, silt, fine sand 0' 1"-0' 9": olive gray, soft, silt, fine sand 0' 9"-1' 8": dark gray, soft, silt	0'6": 5 ppm		
1	1'4.5"-1'5.5": pinholes-0.125" responses, 10-15 per inch 1'5.5"-1'7": 3 - 0.25" diameter responses, 1- 1.25" x 1" response 1'5.5"-1'7": 0.125" diameter responses, 5-10 per inch, 1'7"-1'8": 3 - 0.25" responses 1'7"-1'8": 0.125" responses, 10-15 per inch 1'8"-1'8.5": No response 1'8.5"-1'9.5": 3- 0.25" responses 1'9.5"-1'10": No response 1'10"-2'4": 10% coverage	1'1"-1'8": stained with sheen, 0.125" diameter NAPL droplets, 0-5 per inch 1'8"-1'10": stained with sheen, at 1'9": 1 - 0.125" diameter NAPL droplet 1'10"-2'0": stained with sheen, pinhole-0.5" diameter NAPL droplets, 3-5 per inch	1'0"-1'3": pinhole-0.125" diameter responses, 5-10 per inch 1'0"-1'3": pinhole diameter responses, 10-15 per inch 1'3"-4'3": pinhole diameter responses, 0-5 per inch	1'3"-1'9": 75% 1'9"-1'10": No response 1'10"-2'10": 50%	1' 8"-1' 10": olive gray, soft 1' 10"-2' 0": dark gray, soft, very moist to wet silt	1'0": 23.3 ppm 1'6": 284.8 ppm		
2	2'4"-2'9": 0.125" responses, 0-3 per inch 2'9"-2'11": pinhole-0.25" diameter, 5% coverage 2'11"-3'1": pinhole diameter responses, 5 per inch	2'0"-2'6": stained with sheen, pinhole-0.25" NAPL droplets, 5-10 per inch 2'6"-3'0": stained with sheen, pinhole-0.25" NAPL droplets, 5-10 per inch		2'10"-4'0": 30%	2' 0"-2' 6": dark gray, soft, moist silt at 2' 4": trace root hairs 2' 6"-12' 7": dark gray, medium soft, moist silt	2'0": 116.4 ppm 2'6": 82.5 ppm		
3	3'1"-3'4": pinhole diameter responses, 0-3 per inch 3'4"-3'6": 0.25" responses, 1-3 per inch 3'6"-3'11": 1 - pinhole diameter response 3'11"-4'5": 0.125" responses, 2-5 per inch	3'0"-3'3": stained with sheen, pinhole-0.25" NAPL droplets, 5 per inch 3'3"-3'10": stained with sheen, pinhole-0.125" NAPL droplets, 5-10 per inch 3'10"-4'11": stained with sheen, pinhole-0.25" NAPL droplets, 5-10 per inch						
4	4'5"-4'7": 0.125" responses, 5-10 per inch 4'7"-4'9": 2 - 0.125" responses 4'9"-4'10.5": No response at 4'9": 0.5" x 0.25" response 4'10.5"-5'2": 0.125" responses, 0-3 per inch	4'11"-5'10": stained with sheen, pinhole-0.125" NAPL droplets, 5 per inch	4'3"-4'5": pinhole-0.125" diameter responses, 5 per inch 4'5"-4'7": No response 4'7"-5'9": pinhole diameter responses, 0-5 per inch	4'0"-5'4": 50-75%				
5	5'2"-5'4": 0.125" responses, 3-5 per inch 5'4"-6'0": pinhole diameter responses, 0-3 per inch	5'10"-6'10": stained with sheen, pinhole-0.125" NAPL droplets, 5-10 per inch	5'9"-5'10": 5 - 0.125" responses 5'10"-6'10": pinhole diameter responses, 0-5 per inch	5'4"-5'7": 10% 5'7"-6'10": 50%	at 5' 1": 0.5" x 0.25" piece of plastic	5'0": 127.5 ppm 5'6": 141 ppm		
6	6'0"-6'4": 0.125" responses, 2-5 per inch 6'4"-6'6": pinhole diameter responses, 0-2 per inch at 6'6": 1 - 0.75" diameter response 6'7"-6'10": pinhole diameter responses, 0-3 per inch at 6'7": 0.125" diameter response 6'10"-7'2": 0.25" responses, 5-10 per inch	6'10"-8'0": stained with sheen, 0.25" NAPL droplets, 5-10 per inch	6'10"-6'11": No response at 6'11": 1 - pinhole diameter response 6'11"-7'1": No response	6'10"-7'2": 75%				

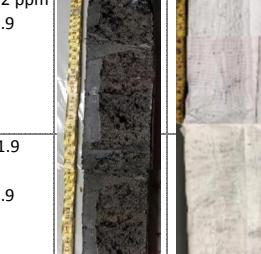
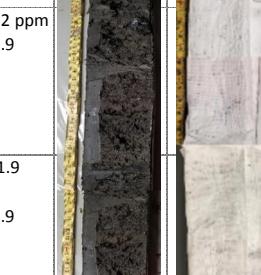
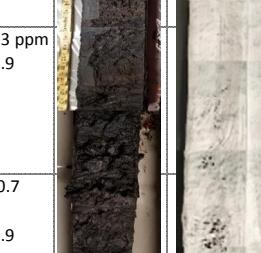
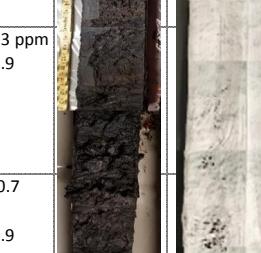
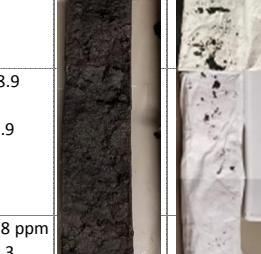
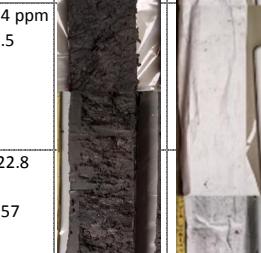
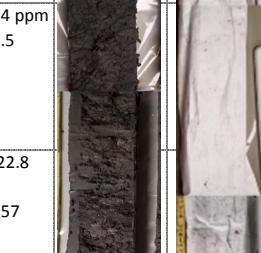
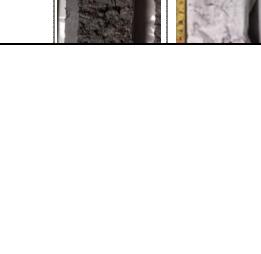
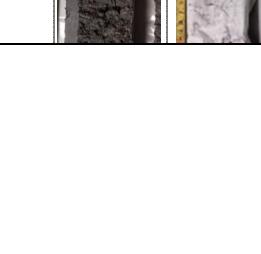
LOCATION: PR1-4 DATE: 2/4/2018 TIME: 10:29 LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'0" NORTHING/EASTING: 718693.54, 633855.75 DEPTH TO TOP OF SEDIMENT: 2.8	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
7	7'2"-7'5": pinhole diameter responses, 0-2 per inch 7'5"-7'8": 0.125" responses, 3-5 per inch 7'8"-8'5": pinhole diameter responses, 0-5 per inch		7'1"-7'5": No response at 7'1": 1 - pinhole diameter response 7'5"-7'7": No response at 7'5": 1 - pinhole diameter response 7'7"-7'8": 3 - pinhole diameter responses 7'8"-8'7": pinhole diameter responses, 0-5 per inch	7'2"-7'6": 20% 7'6"-8'4": 30%		7'0": 120.5 ppm 7'6": 90 ppm		
8	8'5"-9'0": 0.125" responses, 5-10 per inch	8'0"-9'0": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	8'7"-8'9": pinhole-0.125" diameter responses, 5 per inch 8'9"-9'5": pinhole diameter responses, 0-5 per inch	8'4"-8'8": 20% 8'8"-9'5": 75%		8'0": 133.3 ppm 8'6": 561.1 ppm		
9	9'0"-9'6": 1" diameter response, 25% coverage 9'6"-9'8": No response 9'8"-9'11": 1.5" diameter response, 25% coverage 9'11"-10'7": 0.25" responses, 2-5 per inch	9'0"-9'9": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 9'9"-10'0": stained with sheen, 0.25" oozing NAPL droplets, 5-10 per inch	9'5"-9'9": pinhole diameter responses, 5-10 per inch 9'9"-10'5": No response	9'5"-9'7": 5% 9'7"-10'8": 50%	9'0"-9'9": trace fibrous material at 9' 3": fibrous material	9'0": 226.7 ppm 9'6": 86.6 ppm		
10	10'7"-10'11": pinhole diameter responses, 0-5 per inch 10'11"-11'1": 1-0.5" x 2" response	10'0"-10'5": stained with sheen, 0.125" NAPL droplets, 5-10 per inch 10'5"-10'11": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch 10'11"-11'10": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	10'5"-10'8": pinhole diameter responses, 5 per inch 10'8"-11'0": pinhole-0.125" diameter responses, 5-10 per inch	10'8"-11'0": 30%	at 10' 0": < 1' x 0.125" fibrous piece at 10' 5": < 1' x 0.125" fibrous piece	10'0": 162.7 ppm 10'6": 531 ppm		
11	11'1"-11'5": pinhole diameter responses, 0-2 per inch 11'5"-11'10": No response 11'10"-12'3": No response	11'10"-12'7": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	11'0"-11'5": pinhole diameter responses, 2-5 per inch 11'5"-11'7": pinhole-0.125" diameter responses, 2-5 per inch 11'7"-11'10": pinhole diameter responses, 0-5 per inch 11'10"-12'1": pinhole diameter responses, 0-3 per inch	11'0"-11'10": 10% 11'10"-12'8": 5%	at 11' 1": fibrous materials	11'0": 351.6 ppm 11'6": 164.7 ppm		
12	12'3"-12'8.5": pinhole diameter responses, 5 per inch 12'8.5"-12'10.5": pinhole - 0.75" diameter responses, 10% coverage 12'10.5"-13'1": pinhole diameter responses, 0-2 per inch	12'7"-12'11": stained with sheen, pinhole-0.5" NAPL droplets, 5 per inch 12'11"-13'3": stained with sheen, pinhole-0.25" NAPL droplets, 5 per inch	12'1"-13'1": No response at 12'8": 1 - 0.125" response	12'8"-13'3": 30%	12' 7"-13' 10": dark gray, gray, medium soft, moist silt, gets gray at base	12'0": 88.5 ppm 12'6": 121.5 ppm		
13	13'1"-26'0": No response	13'3"-13'10": stained without sheen, pinhole diameter NAPL droplets, 0-3 per inch 13'10"-14'8": stained without sheen	13'1"-13'3": pinhole diameter responses, 0-2 per inch 13'3"-14'10": pinhole diameter responses, 0-5 per inch	13'3"-26'0": No response	13' 10"-14' 5": white shell fragments, 5% coverage 13' 10"-14' 8": olive gray, medium soft, moist silt	13'0": 175 ppm 13'6": 26.9 ppm		

LOCATION: PR1-4 DATE: 2/4/2018 TIME: 10:29 LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'0" NORTHING/EASTING: 718693.54, 633855.75 DEPTH TO TOP OF SEDIMENT: 2.8	Comments:	RAMBOLL				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
14		14'8"-16'10": No staining, no sheen	14'10"-16'3": pinhole diameter responses, 0-3 per inch		14' 8"-16' 10": little to no trace white shell fragments 14' 8"-16' 10": green gray, olive gray, medium soft, moist silt	14'0": 28.4 ppm 14'6": 17.9 ppm		
15						15'0": 37.5 ppm 15'6": 20.4 ppm		
16		16'10"-26'0": None	16'3"-16'8": pinhole diameter responses, 0-2 per inch 16'8"-16'10": No response 16'10"-17'9.5": pinhole diameter responses, 0-5 per inch		16' 10"-21' 0": olive gray, firm, moist silt, trace shell fragments	16'0": 8.3 ppm 16'6": 9 ppm		
17			17'9.5"-17'10": 1 - 0.125" partial band 17'10"-18'1.5": pinhole diameter responses, 0-5 per inch		at 17' 10": oyster shell	17'0": 13.5 ppm 17'6": 18.4 ppm		
18			18'1.5"-18'2": 0.125-0.25" diameter responses, 5-10 per inch 18'2"-19'2.5": pinhole diameter responses, 0-5 per inch		18' 2"-18' 3": shell and broken shell fragments	18'0": 5.7 ppm 18'6": 2.9 ppm		
19			19'2.5"-21'0": pinhole diameter responses, 0-5 per inch at 19'2.5": 1 - 0.125-0.25" diameter response		at 19' 3": 0.25" thick band of shell fragments	19'0": 4.2 ppm 19'6": 2.5 ppm		
20					at 20' 10.5": band of 0.25" shells and broken shell fragments	20'0": 2 ppm 20'6": 3 ppm		

LOCATION: PR1-4 DATE: 2/4/2018 TIME: 10:29 LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'0" NORTHING/EASTING: 718693.54, 633855.75 DEPTH TO TOP OF SEDIMENT: 2.8	Comments:	RAMBOLL				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
21			21'0"-21'4": No response at 21'4": 1 - pinhole diameter response 21'4"-21'7": No response at 21'7": 1 - pinhole diameter response 21'7"-22'0": No response		21' 0"-21' 6": greenish gray, medium soft, moist silt, trace shell fragments 21' 6"-21' 9": greenish gray, medium soft, moist silt 21' 9"-24' 6": greenish gray, medium soft, moist silt, trace shell fragments	21'0": 5.2 ppm 21'6": 1.9 ppm		
22			at 22'0": 1 - pinhole diameter response 22'0"-22'4": No response at 22'4": 3 - pinhole diameter responses 22'4"-23'10": No response at 22'10": 2 - pinhole diameter responses			22'0": 15000 ppm 22'6": 4186 ppm		
23			at 23'10": 1 - pinhole diameter response 23'10"-24'1": No response		at 23' 2": 0.125" thick shell fragment layer, trace wood fragments at 23' 4": trace white shell fragments	23'0": 1896 ppm 23'6": 2732 ppm		
24			at 24'1": 1 - pinhole diameter response 24'1"-24'8": No response 24'8"-25'4": No response at 24'8": 1 - pinhole diameter response		at 24' 5": 0.125" thick layer w shell fragments 24' 6"-24' 9": greenish gray, medium soft, moist silt 24' 9"-26' 0": greenish gray, medium soft, moist silt, trace shell fragments at 24' 9": parting of shell fragments	24'0": 1807 ppm 24'6": 1391 ppm		
25			25'4"-25'8": No response at 25'4": 1 - pinhole diameter response 25'8"-26'0": No response at 25'8": 3 - pinhole diameter responses			25'0": 83.3 ppm 25'6": 1177 ppm		
26						26'0": 1250 ppm		

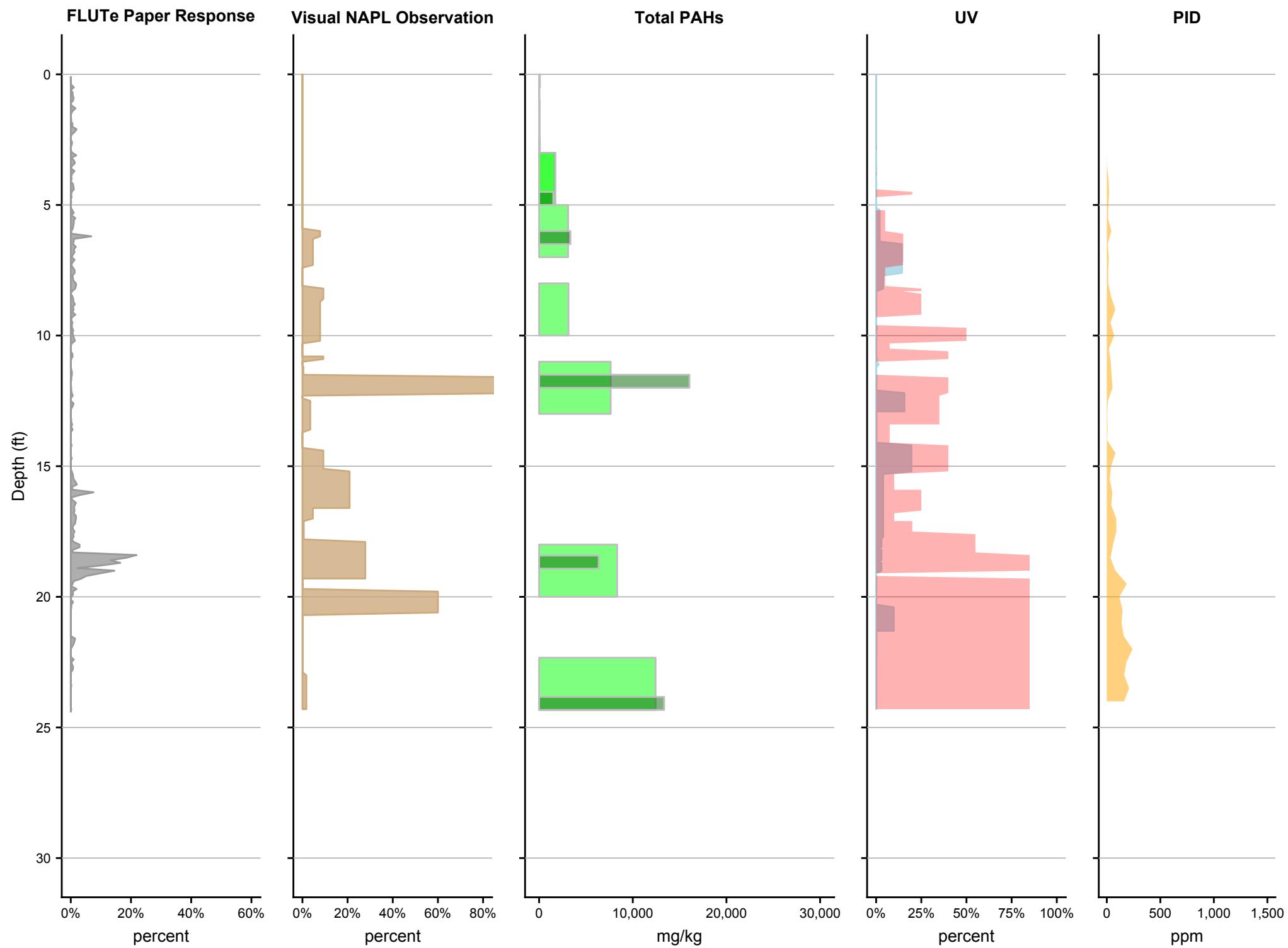
PR1-4-1



LOCATION: PR1-4-1 DATE: 2/18/2018 TIME: 9:57 LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 15'3" NORTHING/EASTING: 718666.7, 633853.77 DEPTH TO TOP OF SEDIMENT: 3.2	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-2'8": No response	0'0"-0'3": stained without sheen 0'3"-1'5": stained with sheen	0'0"-0'11": pinhole-0.125" diameter responses, 5 per inch at 0'7.5"; 1 - 0.5" fibrous material 0'11"-2'10": pinhole-0.125" diameter responses, 20 per inch	0'0"-1'1": No response	0' 0"-0' 3": olive gray, brown, very soft, wet silt 0' 3"-1' 5": olive gray, dark gray, very soft, moist silt, trace clay 0' 3.5"-0' 3.5": OSI plastic ring	0'6": 0.1 ppm		
1		1'5"-1'10": stained with sheen, pinhole-0.5" NAPL droplets, 2-5 per inch 1'10"-2'10": stained with sheen, pinhole-0.75" NAPL droplets, 5-10 per inch		1'1"-1'11": 5 -- 10% 1'11"-2'0": 1 - 0.5" x 0.75" response 1'11"-2'10": 25%	1' 1.5"-6' 1": very dark gray, soft, moist silt, trace clay	1'0": 1 ppm 1'6": 11.3 ppm		
2	2'8"-2'9": 3 pinhole diameter responses 2'9"-3'0": No response	2'10"-4'0": stained with sheen, pinhole-1" NAPL droplets, 5-10 per inch	2'10"-4'3": pinhole diameter responses, 20-30 per inch	at 2'4": 1 - 0.5" x 0.25" response 2'10"-4'3": 15 - 20%		2'0": 23.2 ppm 2'6": 26.9 ppm		
3	3'0"-4'1": No response at 3'0": 2 pinhole diameter responses at 3'2": 1 pinhole-0.125" diameter response			at 3'2": 1 - 0.25" x 0.5" response		3'0": 111.9 ppm 3'6": 75.9 ppm		
4	4'1"-4'4.5": No response at 4'1": 1 pinhole diameter response at 4'4.5": 1 pinhole diameter response 4'4.5"-4'6": No response 4'6"-4'11": pinhole-0.125" diameter responses, 5 per inch 4'11"-5'2": pinhole-0.25" diameter responses, 5 per inch	4'0"-4'6": stained with sheen, pinhole-0.5" NAPL droplets, 2-5 per inch 4'6"-5'9": stained with sheen, pinhole-1" NAPL droplets, 10-15 per inch	4'3"-4'7": pinhole diameter responses, 30-40 per inch 4'7"-6'1": pinhole diameter responses, 20 per inch	4'3"-4'6": 30% 4'6"-5'8": 80%		4'0": 27.3 ppm 4'6": 73.9 ppm		
5	5'2"-5'4": No response 5'4"-5'8.5": pinhole-0.25" diameter responses, 10 per inch 5'8.5"-5'9": 1.25" x 0.5" responses, 50% coverage 5'9"-5'11": pinhole-0.125" diameter responses, 2-5 per inch 5'11"-6'0": pinhole - 0.25" diameter responses, 10-15 per inch	5'9"-6'1": stained with sheen, pinhole-0.25" NAPL droplets, 20-25 per inch	at 5'11": 1 - fibrous material	5'8"-6'1": 90 - 95%		5'0": 130.7 ppm 5'6": 50.9 ppm		
6	6'0"-6'1": 1" x 0.5" responses, 40% coverage 6'1"-6'10": 20% coverage 6'10"-7'8": pinhole-0.125" diameter responses, 5 per inch	6'1"-6'7": stained with sheen, pinhole-1" diameter NAPL droplets, 30-40 per inch 6'7"-8'5": stained with sheen, pinhole diameter NAPL droplets, 30-40 per inch 6'7"-8'5": stained with sheen, pinhole-1" diameter NAPL droplets, 15-20 per inch	6'1"-6'10": pinhole-0.125" diameter responses, 60-70 per inch 6'10"-7'3": pinhole-0.25" diameter responses, 60-70 per inch	6'1"-7'0": 50%	6' 1"-6' 7": dark gray to black, soft, wet silt 6' 1"-8' 8": fibrous material 6' 7"-8' 5": dark gray, soft, wet silt, trace organic matter	6'0": 108.9 ppm 6'6": 73.9 ppm		
7	7'8"-7'11": 20% coverage 7'11"-8'6": pinhole-0.25" diameter responses, 5 per inch		7'3"-7'5": 30% 7'5"-10'3": pinhole-0.125" diameter responses, 50-60 per inch	7'0"-8'4": 40%		7'0": 45.8 ppm 7'6": 58.3 ppm		
8	8'6"-8'10": 20% coverage 8'10"-9'9": pinhole-0.125" diameter responses, 5 per inch	8'5"-8'8": stained with sheen, pinhole-2" diameter NAPL droplets, 40-50 per inch 8'8"-10'3": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch 8'8"-10'3": stained with sheen, pinhole-1" diameter NAPL droplets, 5-10 per inch	at 8'9": 1 - 0.25" diameter response	8'4"-8'10": 90% 8'10"-10'3": 25%	8' 5"-8' 8": dark gray, soft, wet silt 8' 8"-10' 3": dark olive gray, medium soft, moist silt	8'0": 71.7 ppm 8'6": 117.3 ppm		
9	9'9"-10'1": 5 pinhole diameter responses					9'0": 58.4 ppm 9'6": 55.5 ppm		
10	10'1"-10'3": pinhole-0.25" diameter responses, 5 per inch 10'3"-10'4": No response 10'4"-11'0": pinhole-0.25" diameter responses, 5-10 per inch	10'3"-12'0": stained with sheen, pinhole-0.5" NAPL droplets, 2-5 per inch	10'3"-15'3": 0.25" fibrous material throughout 10'3"-11'6": pinhole-0.125" diameter responses, 5-10 per inch	10'3"-12'0": 75%	10' 3"-15' 3": olive gray, medium soft to firm, moist silt, trace clay, <0.25" fibrous material throughout	10'0": 122.8 ppm 10'6": 357 ppm		

LOCATION: PR1-4-1 DATE: 2/18/2018 TIME: 9:57 LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 15'3" NORTHING/EASTING: 718666.7, 633853.77 DEPTH TO TOP OF SEDIMENT: 3.2	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11	11'0"-11'5": pinhole-0.5" diameter responses, 5-10 per inch 11'5"-11'10.5": pinhole-0.125" diameter responses, 0-2 per inch 11'10.5"-11'11.5": 5 pinhole diameter responses 11'11.5"-12'7": 8 pinhole diameter responses		11'6"-12'7": pinhole-0.125" diameter responses, 2-5 per inch			11'0": 435.4 ppm 11'6": 520.3 ppm		
12	12'7"-13'2": 1.0" x 0.5" responses, 30% coverage	12'0"-12'5": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch 12'5"-12'10": stained with sheen, pinhole-0.25" NAPL droplets, 2-5 per inch 12'10"-13'7": stained with sheen, pinhole-1" NAPL droplets, 5-10 per inch	12'7"-13'3": pinhole diameter responses, 0-2 per inch	12'0"-12'7": 40% 12'7"-13'5": 90 - 95%		12'0": 164 ppm 12'6": 231.2 ppm		
13	13'2"-13'9.5": pinhole-0.5" diameter responses, 5-10 per inch 13'9.5"-14'0.5": pinhole-0.25" diameter responses, 5-10 per inch	13'3"-13'4": stained with sheen, 1 - 1.5" by 1.25" oozing NAPL droplet 13'7"-15'3": stained with sheen, pinhole-0.75" NAPL droplets, 2-5 per inch	13'3"-14'1": pinhole-0.125" diameter responses, 10 per inch	13'5"-13'10": 40% 13'10"-13'11": 95% 13'11"-14'9": 60%		13'0": 713.8 ppm 13'6": 424.5 ppm		
14	14'0.5"-14'2": 1"x 0.25" responses, 15-20% coverage, 14'2"-14'8.5": pinhole-0.125" diameter responses, 2-5 per inch 14'8.5"-14'9": 1 - 0.5" diameter response at 14'9": 1 - pinhole diameter response 14'9"-15'3": No response		14'1"-14'6": pinhole diameter responses, 15-20 per inch 14'6"-15'3": pinhole-0.125" diameter responses, 5 per inch	14'9"-15'3": 5%		14'0": 650.7 ppm 14'6": 456.9 ppm		
15					15' 1"-15' 1": 3 rocks <2"	15'0": 70.6 ppm		

PR1-5

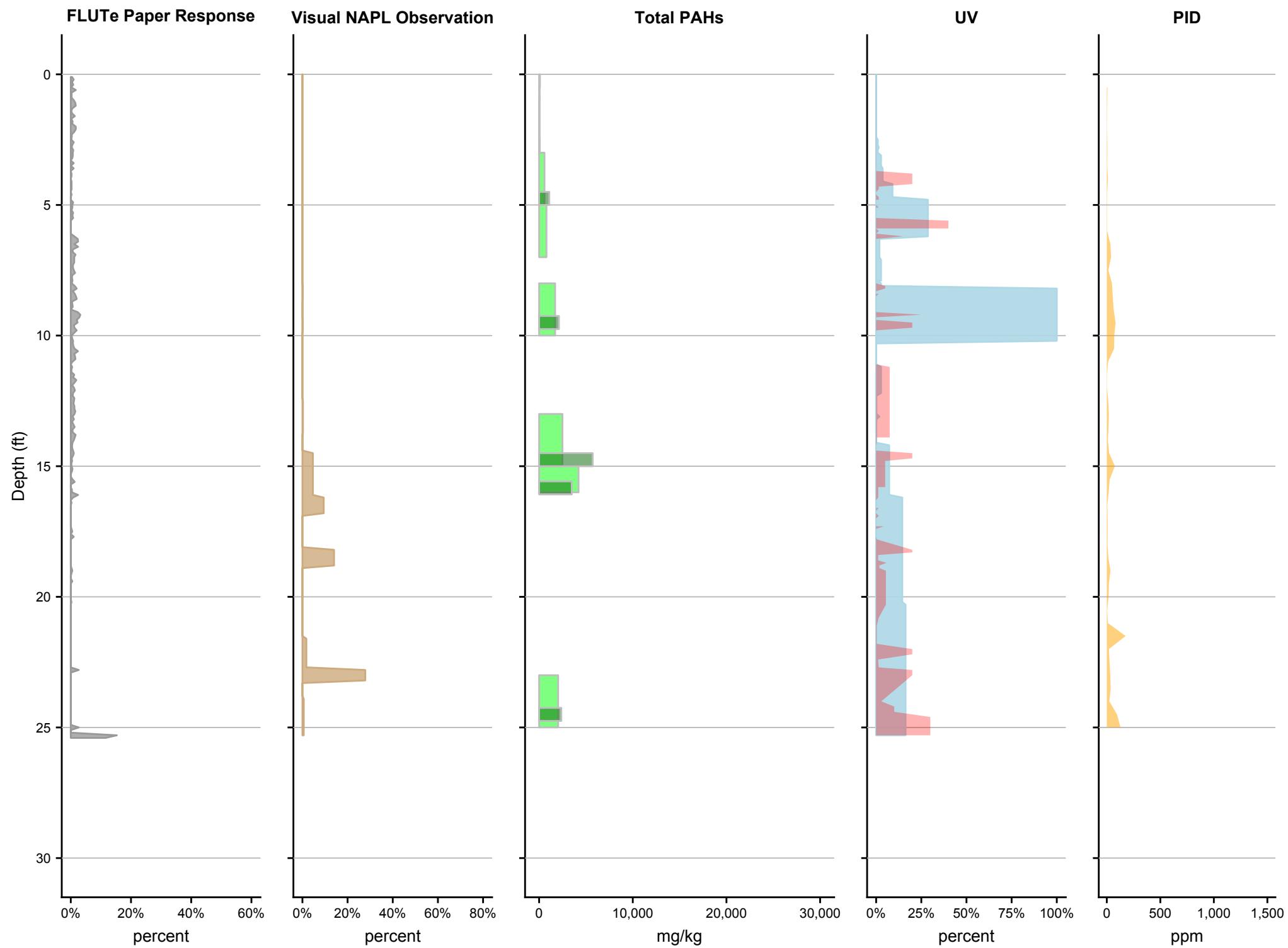


LOCATION: PR1-5 DATE: 2/18/2018 TIME: 12:16 LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 244" NORTHING/EASTING: 718636.11, 633894.55 DEPTH TO TOP OF SEDIMENT: 2.7	Comments:	RAMBOLL				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper	
0	0'0"-6'2": No response	0'0"-0'3": None 0'3"-4'9": stained without sheen	0'0"-0'8": pinhole diameter responses, 2 per inch 0'8"-0'10": pinhole diameter responses, 10 per inch 0'10"-3'0": pinhole diameter responses, 5 per inch	0'0"-2'9": No response	0' 0"-2' 11": trace shell fragments, <1" diameter 0' 0"-0' 3": olive gray brown, wet silt 0' 3"-2' 11": dark gray, soft, very moist silt	0'6": 0.1 ppm			
1			1'0"-1'8": 1 - 0.25"-long fibrous material			1'0": 0.1 ppm 1'6": 0.1 ppm			
2					at 2'9": 1 - 0.125" diameter response 2'9"-3'9": No response	2' 11"-4' 0": dark olive gray, very soft, wet silty clay, trace fibrous material	2'0": 0.1 ppm 2'6": 0.1 ppm		
3			3'0"-3'7.5": No response at 3'7.5": 1 - response, fibrous material 3'7.5"-3'8": No response 3'8"-4'3": pinhole diameter responses, 5-10 per inch	at 3'9": 1 - 0.125" diameter response 3'9"-4'6": No response		3'0": 0.4 ppm 3'6": 1.8 ppm			
4		4'9"-5'2": stained with light sheen	at 4'3": 1 - response, fibrous material 4'3"-4'6": pinhole diameter responses, 10-15 per inch 4'6"-4'8": pinhole diameter responses, 5 per inch 4'8"-5'2": pinhole diameter responses, 5-10 per inch	4'6"-4'7": 20% 4'7"-5'2": No response	4' 0"-5' 2": dark gray, very soft, wet silty clay at 4' 6": root matter	4'0": 16.2 ppm 4'6": 22.3 ppm			
5		5'2"-5'6": stained with sheen, NAPL droplets 5'6"-6'0": stained with sheen	at 5'0": 1 - response, fibrous material 5'2"-6'6": pinhole-0.125" diameter responses, 10 per inch	5'2"-6'1": 5%	5' 2"-8' 7": very dark gray, silt, trace clay, fibers	5'0": 15.1 ppm 5'6": 11.9 ppm			
6	at 6'2": 5 pinhole-0.25" diameter responses 6'2"-10'0": No response	6'0"-6'2": stained with sheen, pinhole-0.75" diameter NAPL droplets, 10 per inch 6'2"-7'4": stained with sheen, pinhole-0.50" diameter NAPL droplets, 5 per inch	6'6"-7'7": pinhole-0.25" diameter responses, 15-20 per inch	6'1"-7'4": 15%		6'0": 41.9 ppm 6'6": 9.2 ppm			
7		7'4"-8'3": stained with sheen, NAPL droplets, 2 per inch	7'7"-8'3": pinhole-0.125" diameter responses, 20 per inch	at 7'2": 1 - 2" x 0.25" band 7'4"-8'3": 5%		7'0": 19.5 ppm 7'6": 13.3 ppm			
8		8'3"-8'7": stained with sheen, pinhole-0.50" diameter NAPL droplets, 5-10 per inch 8'7"-10'2": stained with sheen, pinhole-0.75" diameter NAPL droplets, 5-10 per inch	8'3"-10'2": pinhole diameter responses, 15-20 per inch	8'3"-9'3": 25% at 8'4": 1 - 1" x 0.5" response	8' 7"-10' 2": dark gray, silt, trace clay, fibers	8'0": 14.5 ppm 8'6": 39.4 ppm			
9			at 9'8": 1 - 0.5"-long fibrous material	9'3"-9'8": No response 9'8"-10'2": 50%		9'0": 80.3 ppm 9'6": 34.4 ppm			
10	10'0"-10'2": 3 pinhole diameter responses 10'2"-10'9": No response 10'9"-10'9.5": 4 pinhole diameter responses 10'9.5"-13'7": No response	10'2"-10'9": stained with sheen 10'9"-10'11": stained with sheen, up to 0.125-0.50" diameter NAPL droplets, 5-10 per inch 10'11"-11'3": stained with sheen	10'2"-10'7": pinhole diameter responses, 10-15 per inch at 10'7": 1 - 0.125"-long fibrous material 10'7"-11'1": pinhole diameter responses, 15-20 per inch at 10'10.5": 2 - pinhole-0.125" diameter responses	10'2"-10'7": 5-10% 10'7"-10'11": 40% 10'11"-11'7": No response	10' 2"-15' 2": dark gray, soft, wet silt	10'0": 69.7 ppm 10'6": 20.1 ppm			

LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		PR1-5 2/18/2018 12:16 M. Conlon, A. Papalian OSI	SAMPLING METHOD: CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 244" NORTHING/EASTING: 718636.11, 633894.55 DEPTH TO TOP OF SEDIMENT: 2.7	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11		11'3"-11'7": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20-25 per inch 11'7"-12'2": stained with sheen, 0.125-2.00" diameter NAPL droplets, 30-40 per inch	11'1"-11'3": pinhole diameter responses, 30-40 per inch at 11'1.5": 1 - 0.25" diameter response 11'3"-11'6": pinhole diameter responses, 10-15 per inch 11'6"-11'10": pinhole diameter responses, 30-40 per inch 11'10"-12'2": pinhole diameter responses, 30 per inch	11'7"-12'3": 40%		11'0": 35.9 ppm 11'6": 44.4 ppm		
12		12'2"-12'6": stained with sheen 12'6"-13'7": stained with sheen, pinhole-0.25" diameter NAPL droplets, 20-30 per inch	12'2"-12'11": pinhole-0.125" diameter responses, 80 per inch 12'2"-12'11": 1 - 0.125"-long fibrous material 12'11"-14'0": pinhole diameter responses, 30-40 per inch	12'3"-13'5": 30-40%		12'0": 53.2 ppm 12'6": 10.8 ppm		
13	at 13'7": 2 pinhole diameter responses 13'7"-16'0": No response	13'7"-14'5": stained with heavy sheen		13'5"-14'2": 5-10%		13'0": 4.4 ppm 13'6": 7.3 ppm		
14		14'5"-15'2": stained with sheen, pinhole-0.50" diameter NAPL droplets, 5-10 per inch	14'0"-14'2": pinhole diameter responses, 15-20 per inch 14'2"-15'2": pinhole-0.125" diameter responses, 80-100 per inch 14'2"-15'2": 0.25" fibrous material response	14'2"-15'2": 30% 14'2"-15'2": 40%		14'0": 3.6 ppm 14'6": 81.4 ppm		
15		15'2"-16'7": stained with sheen, pinhole-1.00" diameter NAPL droplets, 10-15 per inch	15'2"-17'8": pinhole-0.125" diameter responses, 20 per inch 15'2"-19'0": 1 - 0.25"-long trace fibers	15'2"-15'11": 10% 15'11"-16'8": 25%	15' 2"-19' 4": very dark gray, medium soft, moist silt, trace clay	15'0": 39.7 ppm 15'6": 27.3 ppm		
16	16'0"-16'1": 10-pinhole-0.125" diameter responses 16'1"-17'11": No response	16'7"-17'0": stained with sheen, pinhole-0.50" diameter NAPL droplets, 2-5 per inch		16'8"-17'1": 10%		16'0": 52.1 ppm 16'6": 42.1 ppm		
17	17'11"-18'3": 20-pinhole-0.125" diameter responses	17'0"-17'11": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch 17'11"-19'4": stained with sheen, pinhole-1.00" diameter NAPL droplets, 15-20 per inch	17'8"-19'0": pinhole-0.125" diameter responses, 15 per inch	17'1"-17'7": 20% 17'7"-18'5": 50-60%		17'0": 88.5 ppm 17'6": 89.2 ppm		
18	18'3"-18'5": No response 18'5"-18'6": 40% coverage 18'6"-18'8.5": 30% coverage 18'8.5"-18'10": 10 pinhole-0.125" diameter responses 18'10"-18'11": 15% coverage 18'10"-19'1": 5 pinhole diameter responses			18'5"-19'0": 80-90%		18'0": 58.8 ppm 18'6": 34.6 ppm		
19	19'1"-19'2": 20% coverage 19'2"-19'4": pinhole-0.25" diameter responses, 5 per inch 19'4"-20'0": pinhole-0.125" diameter responses, 5-10 per inch	19'4"-19'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 19'10"-20'7": stained with sheen, 0.125-1.00" diameter NAPL droplets, 60% coverage	19'0"-19'4": No response 19'4"-19'10": pinhole diameter responses, 20-30 per inch 19'10"-20'5": pinhole diameter responses, 5-10 per inch	19'0"-19'4": No response 19'4"-24'4": 80-90%	19' 4"-24' 4": dark gray, firm, moist silt	19'0": 80.3 ppm 19'6": 186.4 ppm		
20	20'0"-20'2": No response at 20'2": 3 pinhole diameter responses 20'2"-20'5": No response 20'5"-20'7": pinhole-0.25" diameter responses, 3 per inch 20'7"-21'2": No response	20'7"-23'0": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	20'5"-21'4": pinhole-0.125" diameter responses, 40-50 per inch			20'0": 117.6 ppm 20'6": 147.5 ppm		
21	21'2"-22'0": pinhole-0.25" diameter responses, 5 per inch		21'4"-23'7": 1 - 0.125"-long fibrous material 21'4"-22'4": pinhole diameter responses, 30-40 per inch			21'0": 138.1 ppm 21'6": 158.3 ppm		

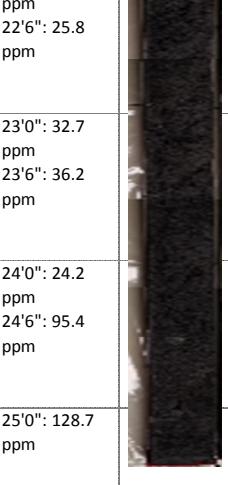
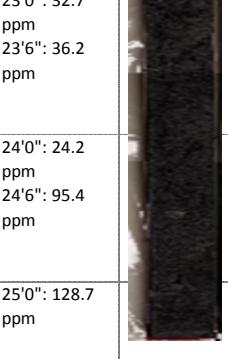
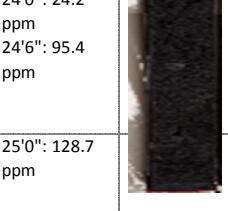
LOCATION: PR1-5 DATE: 2/18/2018 TIME: 12:16 LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 24'4" NORTHING/EASTING: 718636.11, 633894.55 DEPTH TO TOP OF SEDIMENT: 2.7	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22	22'0"-23'9": pinhole-0.25" diameter responses, 20-30 per inch		22'4"-23'2": pinhole diameter responses, 15-20 per inch			22'0": 241.5 ppm 22'6": 183.2 ppm		
23	23'9"-24'2": No response	23'0"-24'4": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch	23'2"-23'7": pinhole diameter responses, 20-30 per inch, 1 - 0.125"-trace fibrous material 23'7"-24'4": pinhole diameter responses, 15-20 per inch, 1 - 0.25"-fibrous material			23'0": 163.3 ppm 23'6": 208.7 ppm		
24	24'2"-24'4": pinholes-0.5" diameter responses, 30% coverage					24'0": 161.7 ppm		

PR1-5-1

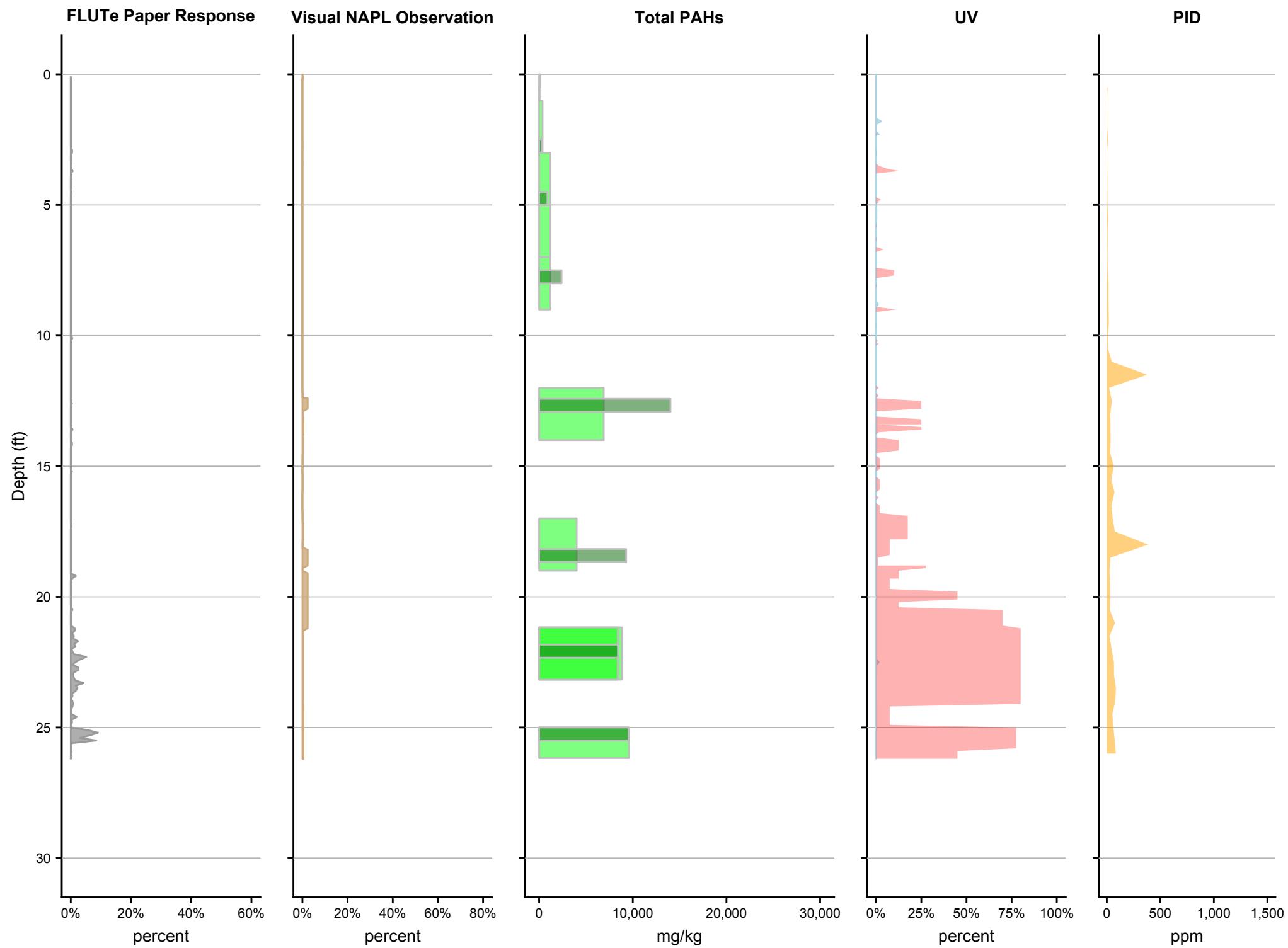


LOCATION: PR1-5-1 DATE: 2/17/2018 TIME: 11:33:00 AM LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 254" NORTHING/EASTING: 718683.81, 633961.19 DEPTH TO TOP OF SEDIMENT: 3.4	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-8'0.5": No response	0'0"-3'1": stained with light sheen	0'0"-2'6": pinhole responses, 0-2 per inch	0'0"-3'10": No response	0' 0"-0' 6": dark gray, brown, very soft, wet silt 0' 6"-3' 1": dark gray, very soft, wet silt	0'6": 6.2 ppm		
1						1'0": 4.9 ppm 1'6": 3.2 ppm		
2			2'6"-3'1": pinhole-0.125" diameter responses, 5 per inch at 2'10": 1 - 0.25" diameter response		at 2' 2": less than 1/2" diameter shell fragments	2'0": 2.4 ppm 2'6": 5 ppm		
3		3'1"-5'8": stained with sheen	3'1"-3'7": pinhole-0.125" diameter responses, 10-15 per inch 3'1"-3'7": 1 - 0.25"-long fibrous material 3'7"-4'2": pinhole-0.125" diameter responses, 15-20 per inch 3'7"-4'2": 1 - 0.125"-long fibrous material	3'10"-4'2": 20% coverage	3' 1"-6' 2": dark gray, soft, wet silt, fibrous material	3'0": 5.7 ppm 3'6": 4.2 ppm		
4			4'2"-4'9": pinhole-0.125" diameter responses, 40-50 per inch 4'2"-4'9": 1 - 0.5"-long fibrous material 4'9"-6'2": pinhole-0.25" diameter responses, 30-40 per inch 4'9"-6'2": 1 - 0.5"-long fibrous material at 4'9": 1 - 0.25"-wide band	4'2"-5'7": No response at 4'4": 1 0.25" response at 4'5": 1 0.25" response at 4'8": 1 0.25" response at 4'10": 1 0.25" response		4'0": 10.9 ppm 4'6": 4.1 ppm		
5		5'8"-6'2": stained with sheen, pinhole diameter NAPL droplets, 2 per inch		at 5'1": 1 0.25" response 5'7"-5'10.5": 40% coverage 5'10.5"-6'2": No response		5'0": 3.1 ppm 5'6": 3.4 ppm		
6		6'2"-8'1.5": stained with heavy sheen	6'2"-7'1": pinhole-0.125" diameter responses, 10 per inch 6'2"-7'1": 1 - 0.5"-long trace fibrous material	at 6'0": 1 0.25" response 6'2"-6'3": 15% coverage 6'3"-8'1.5": No response	6' 2"-8' 7": very dark gray, medium soft, moist silt, trace clay	6'0": 3.8 ppm 6'6": 34.1 ppm		
7			7'1"-8'2": pinhole-0.125" diameter responses, 10-15 per inch 7'1"-8'2": 1- 0.5"-long trace fibrous material at 7'11": 1- 0.5"-long partial band			7'0": 39.8 ppm 7'6": 14.9 ppm		
8	at 8'0.5": 1 pinhole response 8'0.5"-9'3": No response	8'1.5"-8'7": stained with heavy sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch 8'7"-9'5": stained with heavy sheen, pinhole-0.125" diameter NAPL droplets, 0-2 per inch	8'2"-10'2": 1 - 0.5"-long trace fibrous material 8'2"-10'2": pinhole-1" diameter responses, 20 per inch	8'1.5"-8'2.5": 5% coverage 8'2.5"-9'2": No response at 8'4.5": 1 0.25" response	8' 7"-8' 11": olive gray, medium soft, moist silt, trace clay 8' 11"-9' 10": dark gray, medium soft, moist silt, trace clay	8'0": 48.5 ppm 8'6": 55.8 ppm		
9	9'3"-9'3.5": 2 pinhole responses 9'3.5"-10'4": No response	9'5"-9'10": stained with heavy sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 9'10"-11'2": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch		9'2"-9'2.5": 25% coverage 9'2.5"-9'6": No response at 9'6": 1 0.5" response 9'6"-9'8": 20 responses 9'8"-11'2": No response	9' 10"-11' 2": olive gray, medium soft, moist silt, trace clay	9'0": 63.8 ppm 9'6": 82.3 ppm		
10	at 10'4": 1 pinhole response 10'4"-12'11.5": No response		10'2"-11'2": 1 - 0.5"- long trace fibrous material 10'2"-11'2": pinhole diameter responses, 10-15 per inch			10'0": 69.8 ppm 10'6": 68.5 ppm		

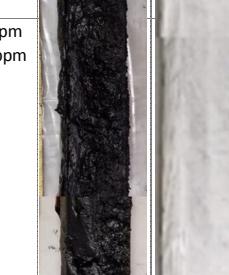
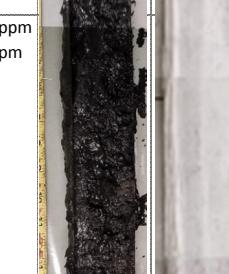
LOCATION: PR1-5-1 DATE: 2/17/2018 TIME: 11:33:00 AM LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 254" NORTHING/EASTING: 718683.81, 633961.19 DEPTH TO TOP OF SEDIMENT: 3.4	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11		11'2"-12'6": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	11'2"-12'3": pinhole-0.125" diameter responses, 10-15 per inch	11'2"-13'11": 5-10% coverage	11' 2"-13' 8": dark gray, medium soft, moist silt, trace clay	11'0": 12.3 ppm 11'6": 2.7 ppm		
12	at 12'11.5": 1 pinhole response 12'11.5"-13'11": No response	12'6"-13'8": stained with sheen, pinhole-0.25" diameter NAPL droplets, 0-2 per inch	12'3"-13'4": pinhole responses, 20-30 per inch			12'0": 2.8 ppm 12'6": 13.4 ppm		
13	at 13'11": 1 pinhole response 13'11"-14'7": No response	13'8"-14'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-2 per inch	at 13'1": 1 - 2"-long fibrous material 13'4"-14'3": pinhole responses, 10-15 per inch	13'11"-14'1": 4- pinhole-0.125" diameter responses	13' 8"-14' 6": olive gray, medium soft, moist silt, trace clay	13'0": 19.4 ppm 13'6": 16.1 ppm		
14	at 14'7": 1 pinhole response 14'7"-15'7": No response	14'6"-16'2": stained with sheen, pinhole-0.5" diameter NAPL droplets, 2-5 per inch	14'3"-16'2": pinhole-0.125" diameter responses, 30-40 per inch	14'1"-14'6": No response 14'6"-14'8": 20% coverage 14'8"-15'9": 5% coverage	14' 6"-16' 2": dark gray, medium soft, moist silt, trace clay	14'0": 10.3 ppm 14'6": 22.1 ppm		
15	at 15'7": 2 pinhole responses 15'7"-16'1": No response			15'9"-16'2": 8- pinhole-0.25" diameter responses		15'0": 75.7 ppm 15'6": 27.3 ppm		
16	at 16'1": 1 pinhole response 16'1"-22'11": No response	16'2"-16'10": stained with sheen, pinhole diameter NAPL droplets, 50-60 per inch 16'2"-16'10": stained with sheen, 0.125-0.5" diameter NAPL droplets, 10 per inch 16'10"-18'2": stained with sheen, pinhole diameter NAPL droplets, 10-20 per inch	16'2"-20'4": 1 - 0.125"-long fibrous material 16'2"-20'4": pinhole-0.125" diameter responses, 70-80 per inch	16'2"-16'7": No response at 16'7": 1 - 0.25" response 16'7"-16'11": No response at 16'11": 1 - 0.25" response	16' 2"-17' 0": dark gray, soft, moist silt	16'0": 17.4 ppm 16'6": 4.7 ppm		
17				16'11" - 18'2": No response at 17'4": 3 - 0.25" responses at 17'10": 1 - 0.125" response	17' 0"-20' 4": dark gray, soft, moist silt, fibrous material	17'0": 7.8 ppm 17'6": 7.8 ppm		
18		18'2"-18'9": stained with sheen, 0.125-1" diameter NAPL droplets, 5-10 per inch 18'2"-18'9": stained with sheen, pinhole diameter NAPL droplets, 20 per inch 18'9"-20'4": stained with sheen, pinhole diameter NAPL droplets, 20-30 per inch		18'2"-18'4": 20% coverage 18'4"-18'8": 5 - 0.125-0.25" diameter responses 18'8"-19'0": pinhole-0.125" diameter responses, 5-10 per inch	at 18' 9": trace organic matter	18'0": 7.2 ppm 18'6": 14.6 ppm		
19				at 19'0": 1" by 0.125" response 19'0"-20'4": pinhole-0.125" diameter responses, 20-30 per inch		19'0": 34.2 ppm 19'6": 19.5 ppm		
20		20'4"-21'7": stained with sheen, pinhole diameter NAPL droplets, 10-20 per inch	20'4"-25'4": pinhole-0.125" diameter responses, 80-90 per inch 20'4"-25'4": 1 - 0.25"-long fibrous material	at 20'10": 1 0.125" diameter response at 20'10": 1 0.25" diameter response	20' 4"-21' 0": dark gray, soft, moist silt	20'0": 16.5 ppm 20'6": 3.6 ppm		
21		21'7"-22'9": stained with sheen, pinhole diameter NAPL droplets, 10-20 per inch 21'7"-22'9": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch		at 21'1.5": 1 0.125" diameter response at 21'7": 1 0.125" diameter response at 21'9": 1 0.125" diameter response	21' 0"-25' 4": dark gray, soft, moist silt,fibrous material	21'0": 9.8 ppm 21'6": 176.2 ppm		

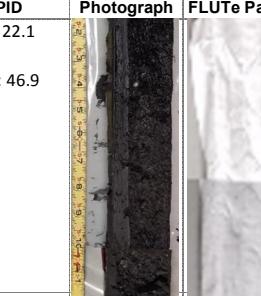
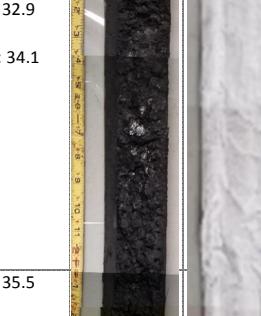
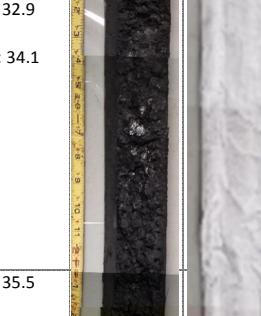
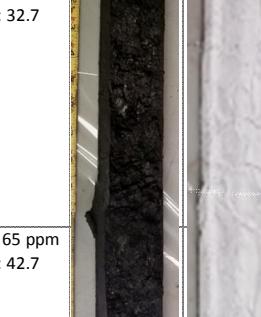
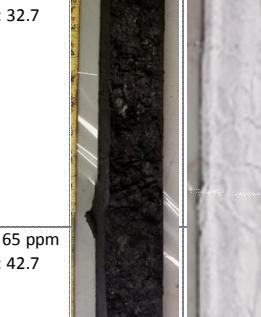
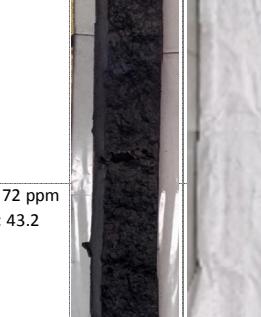
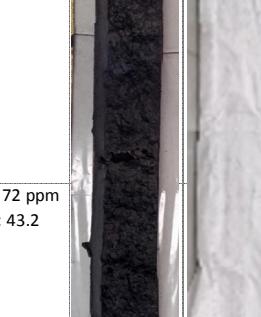
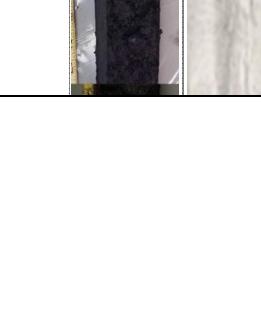
LOCATION: PR1-5-1 DATE: 2/17/2018 TIME: 11:33:00 AM LOGGED BY: M. Conlon, A. Papalian DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 254" NORTHING/EASTING: 718683.81, 633961.19 DEPTH TO TOP OF SEDIMENT: 3.4	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22	at 22'11": 1 0.125" diameter response 22'11"-23'0": No response	22'9"-23'2": stained with sheen, pinhole-1" diameter NAPL droplets, 20 per inch 22'9"-23'2": stained with sheen, pinhole diameter NAPL droplets, 10-20 per inch		22'0"-22'2": 20% coverage at 22'5": 3 0.125" diameter responses at 22'8": 1 0.25" diameter response 22'9"-23'0": 20% coverage		22'0": 19.9 ppm 22'6": 25.8 ppm		
23	at 23'0": 1 0.25" diameter response 23'0"-23'5": No response at 23'5": 1 0.25" diameter response 23'5"-23'5.5": No response at 23'5.5": 1 0.125" diameter response 23'5.5"-24'5": No response	23'2"-23'11": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch 23'11"-25'4": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch 23'11"-25'4": stained with sheen, pinhole-0.25" diameter NAPL droplets, up to 5 per inch				23'0": 32.7 ppm 23'6": 36.2 ppm		
24	at 24'5": 1 0.5 by 0.125" response 24'5"-25'4": No response			at 24'0": 2 0.25" diameter responses 24'2"-24'5": 10% coverage 24'7"-25'4": 30% coverage		24'0": 24.2 ppm 24'6": 95.4 ppm		
25						25'0": 128.7 ppm		

PR1-5-2

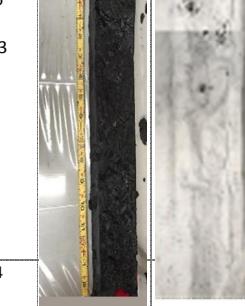
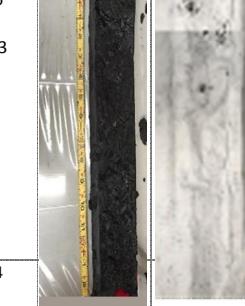
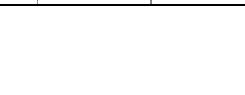


LOCATION: PR1-5-2 DATE: 3/5/2018 TIME: 12:40 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'2" NORTHING/EASTING: 718649.7, 718649.7 DEPTH TO TOP OF SEDIMENT: 2.7	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-13'4": No response	0'0"-0'6": light staining at 0'1": sheen spot, 1 - 0.125" x 0.5" diameter 0'6"-3'9": stained without sheen	0'0"-2'7": pinhole diameter responses, 0-5 per inch	0'0"-2'4": No response	0' 0"-0' 6": olive gray and dark gray, very loose, wet silt 0' 6"-2' 2": dark olive gray, very soft, wet silt, trace fine sand, trace shell fragments at 0' 7": 0.125" x 1" translucent organic material, 0.75" intact shell	0'6": 6.6 ppm		
1			at 1'9": 1 - 0.125" x 0.75" response at 1'10": 1 - 0.125" x 0.75" response		at 1' 6": 0.75" intact shell	1'0": 1.8 ppm 1'6": 3.4 ppm		
2		at 2'7": sheen spot staining, 1 - 0.125" diameter NAPL droplet at 2'9": sheen spot staining, 1 - 0.125" diameter NAPL droplet	at 2'4": 1 - 0.25" response 2'7"-2'10": pinhole diameter responses, 5-10 per inch 2'10"-5'2": pinhole diameter responses, 10-15 per inch	2'4"-2'7": No response at 2'4": 1 - 0.125" diameter response 2'7"-2'10": pinhole diameter responses, 0-5 per inch 2'10"-2'11": No response 2'11"-3'1": pinhole diameter responses, 15-20 per inch	2' 2"-2' 10": dark olive gray, soft, wet silt, trace fine sand 2' 10"-6' 11": dark gray, soft, wet silt, trace fine sand	2'0": 3.5 ppm 2'6": 10.1 ppm		
3		at 3'5": sheen spot staining, 1 - 0.125" diameter NAPL droplet 3'9"-7'9": stained with light sheen		3'1"-3'6": No response at 3'6": 1 - 0.25" diameter response 3'6"-3'7": No response at 3'7": 1 - 0.50" diameter response 3'7"-3'8": No response 3'8"-4'10": No response at 3'8": 1 - 0.75" diameter response		3'0": 1.6 ppm 3'6": 3.6 ppm		
4				4'10"-4'11": No response at 4'10": 1 - 0.125" x 0.75" response 4'11"-5'10": No response at 4'11": 1 - 0.25" diameter response	at 4' 4": very fine fibrous material at 4' 11": leaf fragment	4'0": 5.4 ppm 4'6": 5.2 ppm		
5			5'2"-5'6": pinhole diameter responses, 20-25 per inch 5'6"-8'6": pinhole diameter responses, 10-15 per inch	5'11"-6'4": No response at 5'10": 1 - 0.125" diameter response		5'0": 6 ppm 5'6": 12.7 ppm		

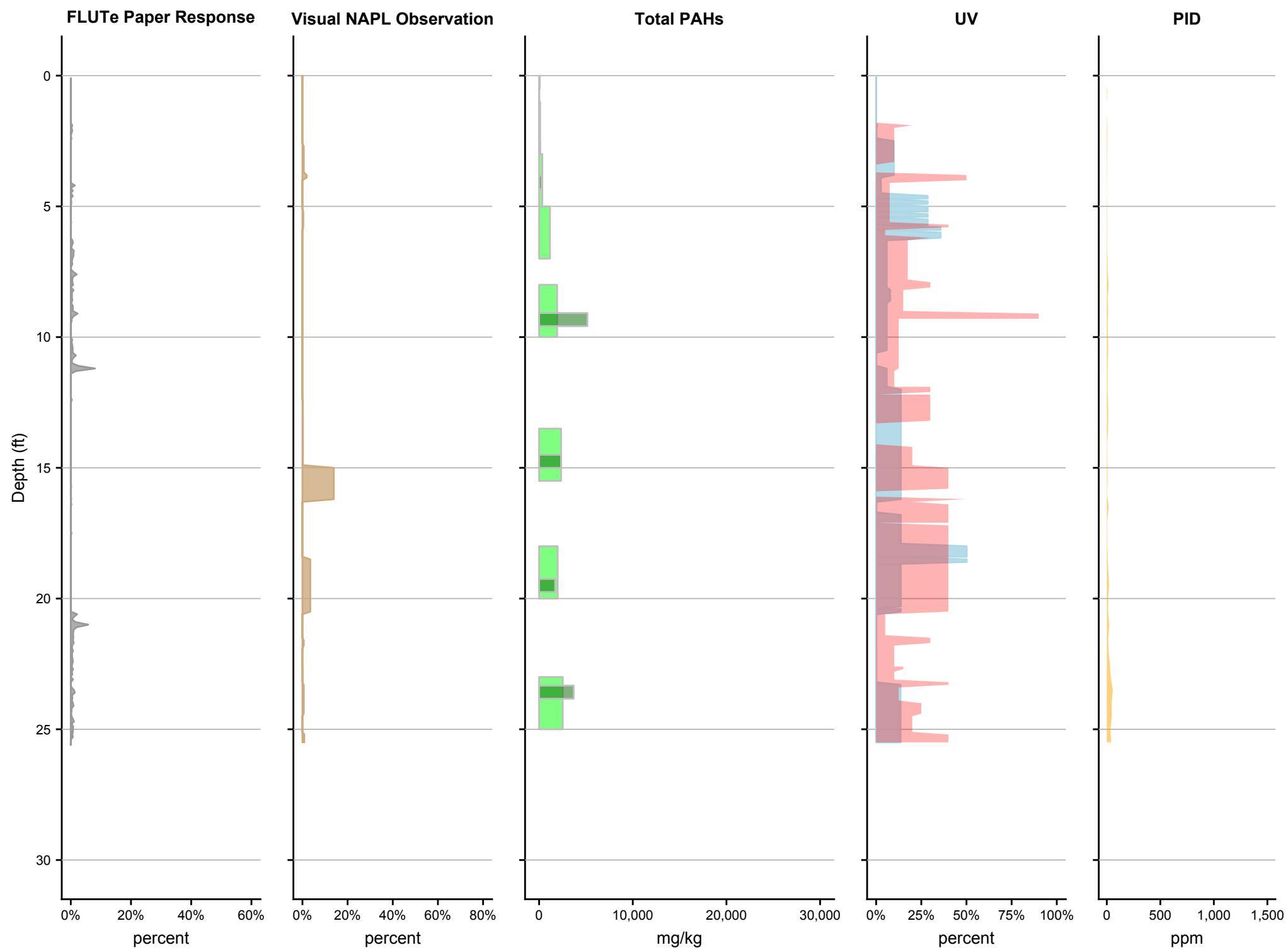
LOCATION: PR1-5-2 DATE: 3/5/2018 TIME: 12:40 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'2" NORTHING/EASTING: 718649.7, 718649.7 DEPTH TO TOP OF SEDIMENT: 2.7	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
6				6'4"-6'8": No response at 6'4": 1 - 0.125" diameter response at 6'8": 3 - 0.25" diameter responses 6'8"-6'11": No response at 6'8": 1 - 0.25" x 0.5" response at 6'11": 1 - pinhole diameter response 6'11"-7'6": No response	6' 11"-11' 6": dark gray and olive gray, soft, wet silt	6'0": 7.6 ppm 6'6": 7.7 ppm		
7		7'9"-7'10": stained with ten (10) brown sheen spots (questionable due to moisture content of sediment)		7'6"-7'8": 10% 7'8"-7'10": No response 7'10"-7'11": pinhole diameter responses, 15-20 per inch 7'11"-8'1": No response		7'0": 5.8 ppm 7'6": 8.9 ppm		
8			8'6"-11'4": pinhole diameter responses, 0-5 per inch at 8'10": 1 - 0.0625" x 0.5" response	8'1"-9'0": No response at 8'1": 1 - 0.125" diameter response	at 8' 10": 2" x 1" black plastic piece	8'0": 16 ppm 8'6": 15.6 ppm		
9				9'0"-9'6": No response at 9'0": 1 - 0.5" x 0.75" response 9'6"-9'8": pinhole diameter responses, 10-15 per inch 9'8"-10'2": No response		9'0": 16.5 ppm 9'6": 19 ppm		
10		10'2"-10'3": None		10'2"-10'4": No response at 10'2": 1 - 0.125" x 0.25" response at 10'4": 1 - 0.25" diameter response 10'4"-12'0": No response		10'0": 10.2 ppm 10'6": 11.2 ppm		
11		11'6"-11'11": light stained with light sheen 11'11"-12'2": stained with light sheen 11'11"-12'2": None	11'4"-11'11": pinhole diameter responses, 10-15 per inch 11'11"-12'2": pinhole diameter responses, 0-5 per inch		at 11' 5": 1" shell 11' 6"-12' 3": olive gray, medium firm, moist silt, trace clay at 11' 7": fine fibrous material	11'0": 46.2 ppm 11'6": 378.3 ppm		

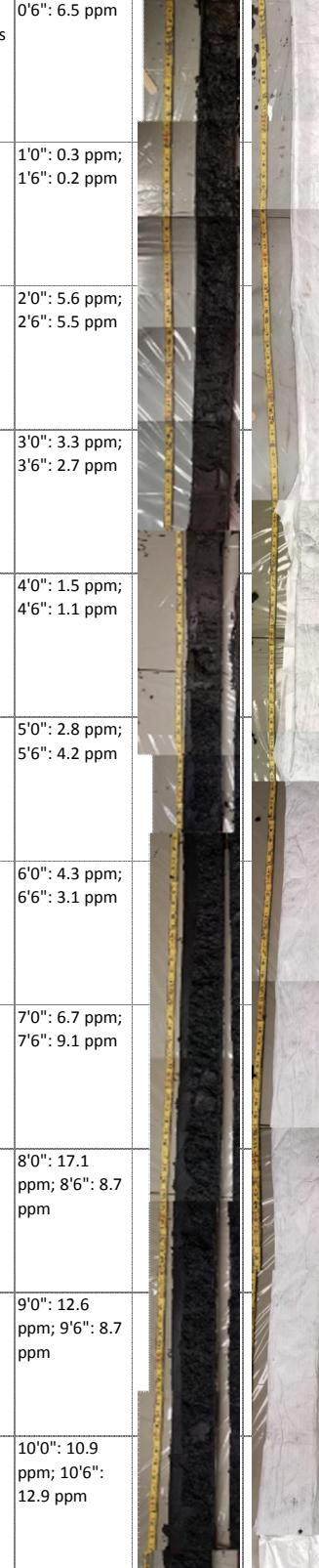
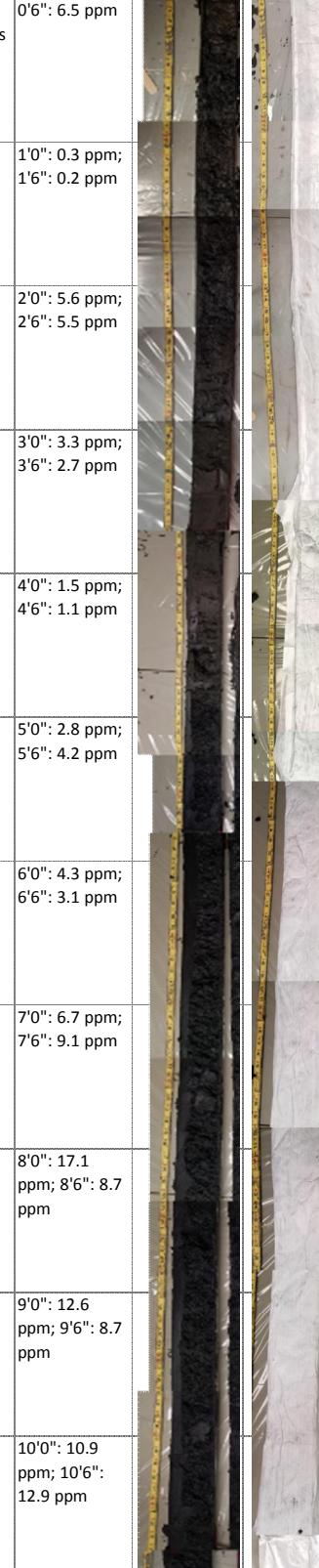
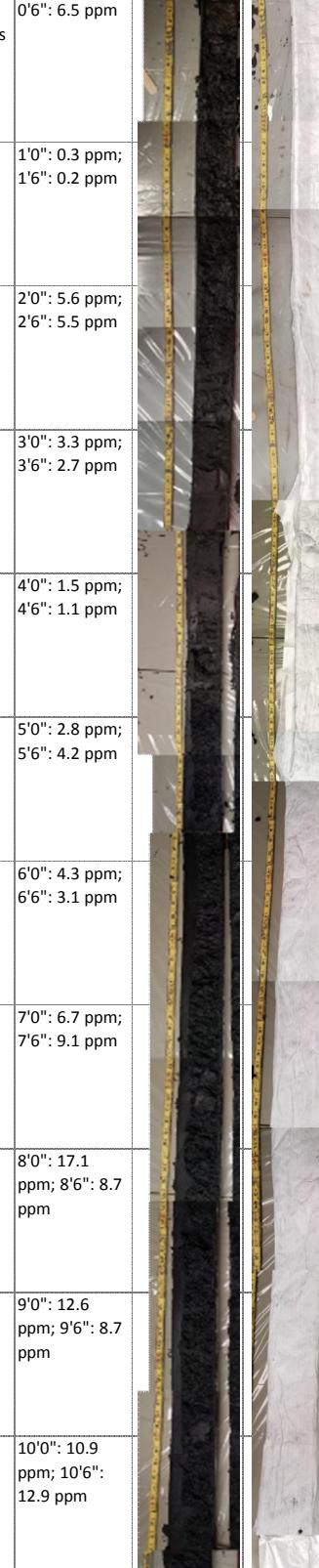
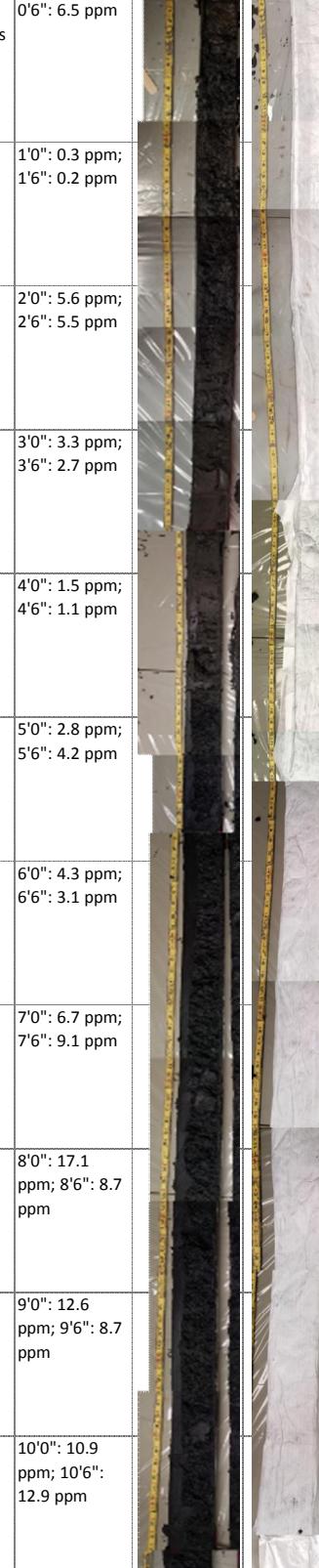
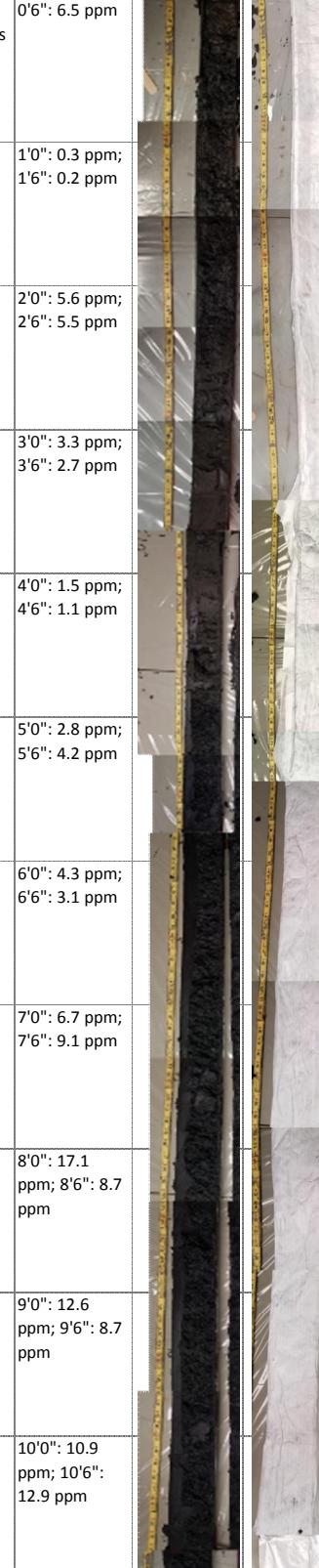
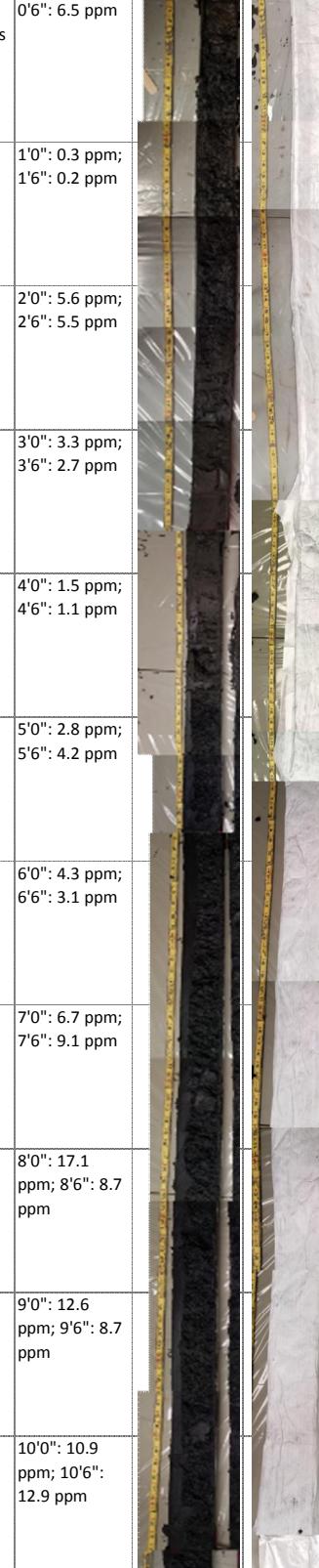
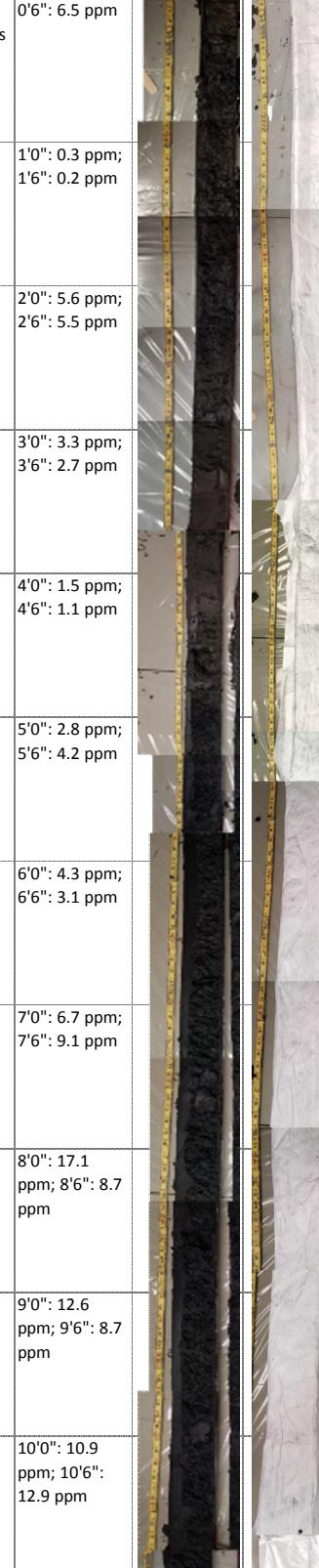
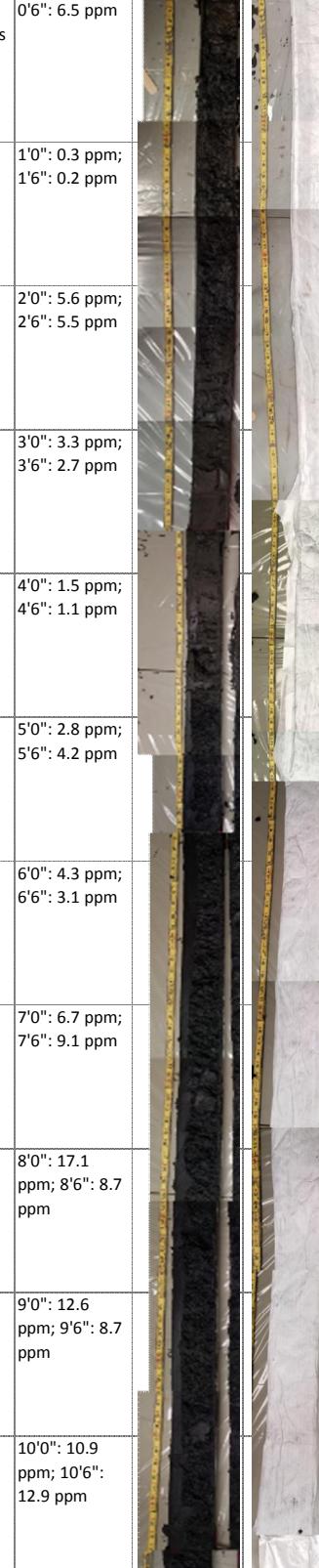
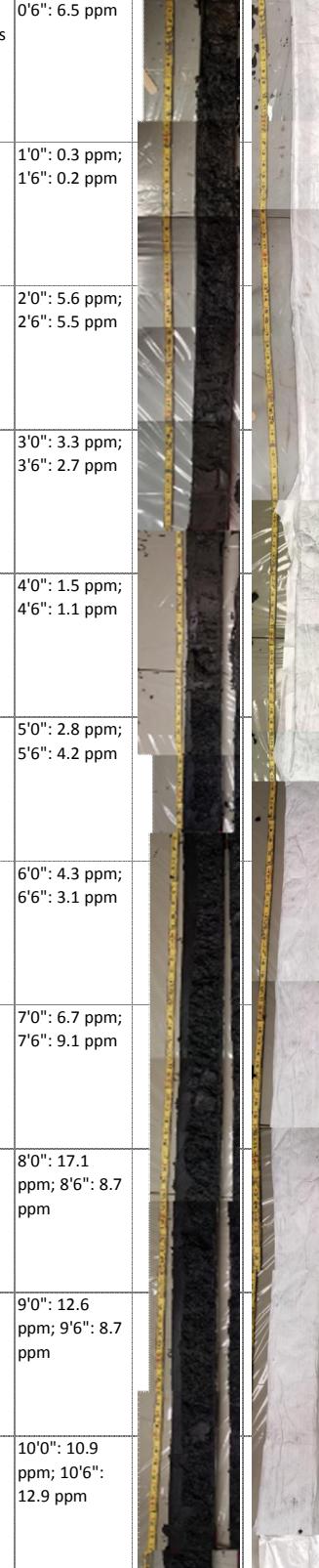
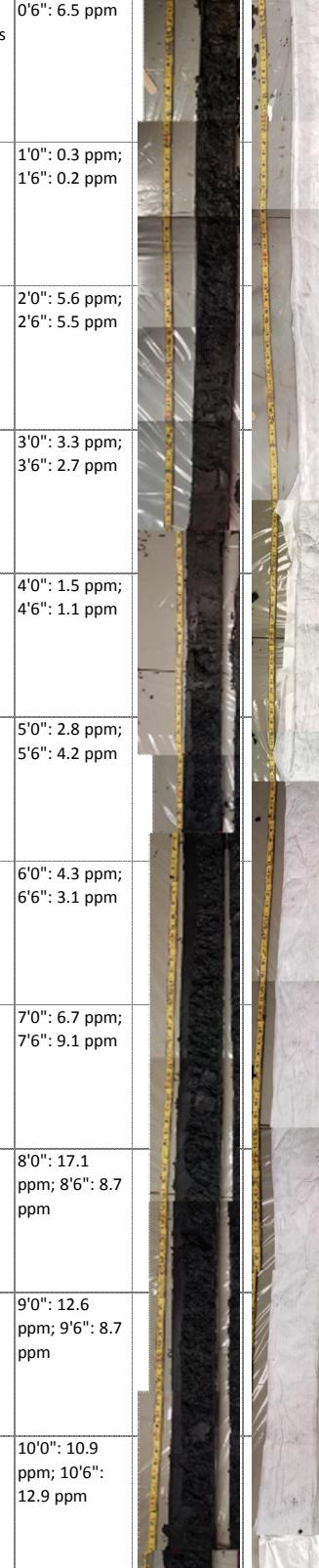
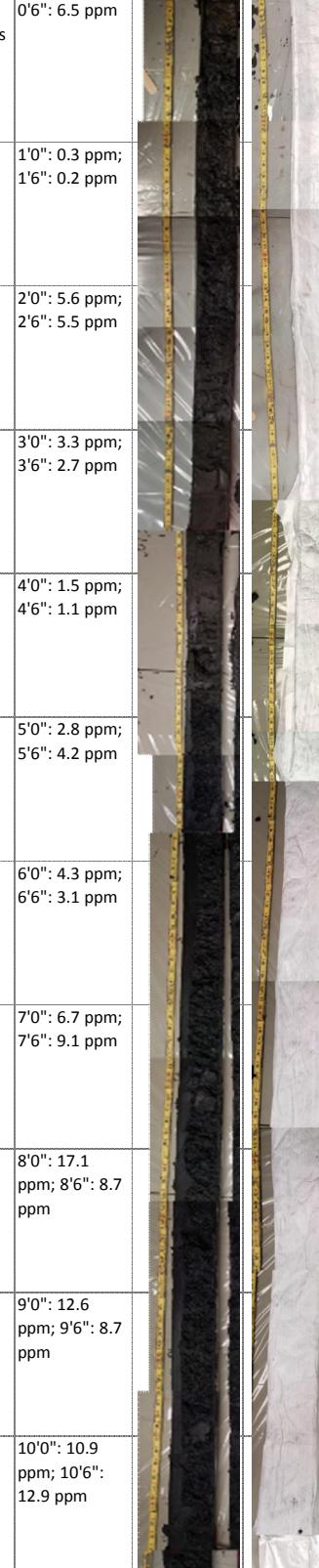
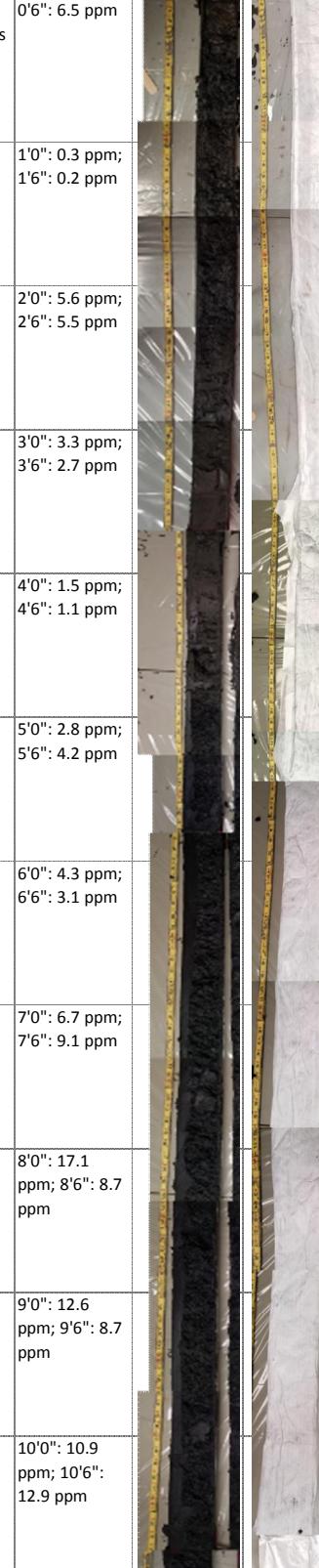
LOCATION: PR1-5-2 DATE: 3/5/2018 TIME: 12:40 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'2" NORTHING/EASTING: 718649.7, 718649.7 DEPTH TO TOP OF SEDIMENT: 2.7	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
12		12'2"-12'5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch 12'5"-12'10": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch 12'10"-13'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch	12'2"-16'0": pinhole diameter responses, 20-25 per inch	12'0"-12'4": No response at 12'0": 1 - 0.25" diameter response 12'4"-12'6": No response at 12'4": 2 - 0.125" diameter responses at 12'4": 1 - 0.25" diameter response 12'6"-12'10": 20 - 30% 12'10"-13'3": pinhole diameter responses, 0-5 per inch	12' 3"-13' 2": dark gray, medium firm, moist silt, trace clay	12'0": 22.1 ppm 12'6": 46.9 ppm		
13	at 13'4": 2 pinhole diameter responses 13'4"-13'5": No response 13'5"-14'0": No response at 13'5": 1 pinhole diameter response at 14'0": 1 pinhole diameter response	13'3"-13'9": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20-30 per inch 13'9"-14'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch		13'3"-13'7": 20 - 30% at 13'5": 2 - 0.125" diameter responses at 13'7": 4 - 0.125" diameter responses 13'7"-13'8": No response at 13'8": 1 - 0.25" diameter response 13'8"-14'0": No response	13' 2"-14' 2": dark olive gray, medium firm, moist silt, trace clay	13'0": 32.9 ppm 13'6": 34.1 ppm		
14	14'1"-14'3.5": No response 14'3.5"-20'5": No response at 14'3.5": 1 pinhole diameter response	14'6"-15'0": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch		14'0"-14'5": 10 - 15% 14'5"-14'8": No response 14'8"-15'1": pinhole-0.25" diameter responses, 0-3 per inch	14' 2"-15' 2": olive gray, medium firm, moist silt, trace clay	14'0": 35.5 ppm 14'6": 32.7 ppm		
15		15'0"-15'4": stained with sheen 15'4"-15'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch 15'11"-16'10": stained with sheen		15'1"-15'6": No response 15'6"-15'11": pinhole-0.125" diameter responses, 5-10 per inch 15'11"-16'3": No response	15' 2"-15' 8": dark olive gray, medium firm, moist silt, trace clay 15' 8"-15' 9": dark olive gray, firm, moist silt, trace clay 15' 9"-16' 11": olive gray, firm, moist silt, trace clay	15'0": 65 ppm 15'6": 42.7 ppm		
16		16'10"-17'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch	16'0"-16'6": pinhole diameter responses, 5-10 per inch 16'6"-16'11": pinhole diameter responses, 20-25 per inch 16'11"-23'0": pinhole diameter responses, 15-20 per inch	at 16'3": 1 - 0.25" diameter response 16'3"-16'6": No response 16'6"-16'11": pinhole-0.125" diameter responses, 5-10 per inch 16'11"-17'9": 15 - 20%	16' 11"-21' 2": dark olive gray, firm, moist silt, trace clay	16'0": 72 ppm 16'6": 43.2 ppm		
17		17'2"-17'9": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch 17'9"-18'1": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch		17'9"-18'5": 5 - 10%		17'0": 54.8 ppm 17'6": 75.2 ppm		

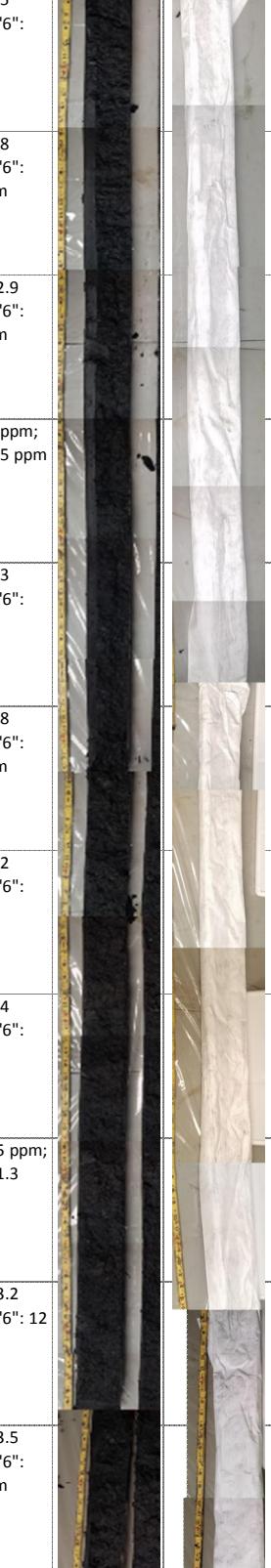
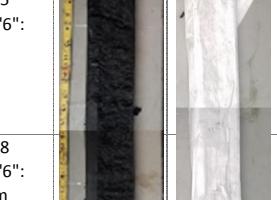
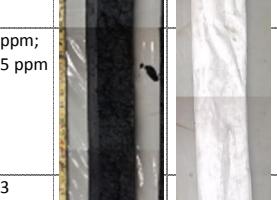
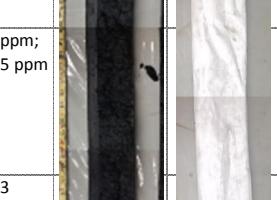
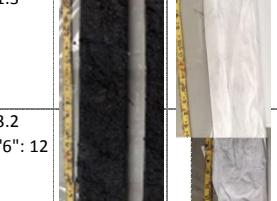
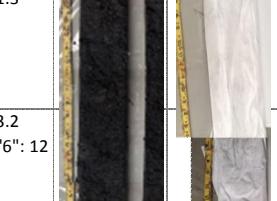
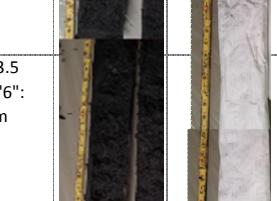
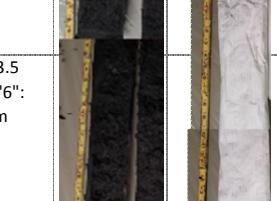
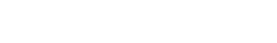
LOCATION: PR1-5-2 DATE: 3/5/2018 TIME: 12:40 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'2" NORTHING/EASTING: 718649.7, 718649.7 DEPTH TO TOP OF SEDIMENT: 2.7	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
18		18'1"-18'2": stained with sheen 18'2"-18'10": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch 18'10"-19'1": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch		18'5"-18'9": pinhole-0.125" diameter responses, 0-5 per inch 18'9"-18'11": 25 -30% 18'11"-19'4": 10 -15%		18'0": 387.5 ppm 18'6": 33.1 ppm		
19		19'1"-21'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch		19'4"-19'10": 5 -10% 19'10"-20'1": 40 -50%		19'0": 25.3 ppm 19'6": 29.9 ppm		
20	at 20'5": 1 pinhole diameter response 20'5"-21'4": No response			20'1"-20'6": 10 -15% 20'6"-21'2": 65 -75%		20'0": 30.6 ppm 20'6": 28.4 ppm		
21	at 21'4": 1 pinhole diameter response 21'4"-21'6": No response 21'6"-21'10.5": pinhole diameter responses, 5-10 per inch 21'10.5"-22'0": No response	21'2"-24'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch		21'2"-24'1": 75 -85%	21' 2"-26' 2": dark gray, firm, moist silt, trace clay	21'0": 76.6 ppm 21'6": 25.3 ppm		
22	22'0"-22'4": pinhole-0.125" diameter responses, 10-15 per inch 22'4"-22'8": pinhole diameter responses, 0-5 per inch at 22'8": 1 pinhole diameter response, 1 - 0.125" diameter response 22'8"-23'2": pinhole diameter responses, 0-2 per inch		at 22'6": 1 - 0.25" response			22'0": 44.8 ppm 22'6": 66.4 ppm		
23	23'2"-23'7": pinhole-0.125" diameter responses, 0-5 per inch 23'7"-24'1": pinhole diameter responses, 0-2 per inch		23'0"-24'1": pinhole diameter responses, 5-10 per inch			23'0": 67.5 ppm 23'6": 85.5 ppm		

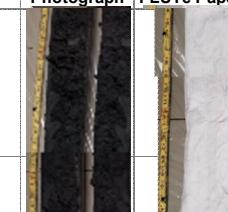
LOCATION: PR1-5-2 DATE: 3/5/2018 TIME: 12:40 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'2" NORTHING/EASTING: 718649.7, 718649.7 DEPTH TO TOP OF SEDIMENT: 2.7	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
24	24'1"-24'10": No response 24'10"-25'0": No response at 24'10": 2 pinhole diameter responses	24'3"-26'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 25-30 per inch	24'1"-25'1": pinhole diameter responses, 15-20 per inch	24'1"-25'0": 5 -10% at 24'3": 1 - 0.50" diameter response at 24'4": 2 - 0.125" diameter responses at 24'10": 1 - 0.50" diameter response		24'0": 79.1 ppm 24'6": 52.1 ppm		
25	25'0"-25'5": pinhole-0.25" diameter responses, 5-10 per inch 25'5"-25'8": pinhole diameter responses, 0-2 per inch 25'8"-25'11": No response at 25'11": 2 pinhole diameter responses 25'11"-26'2": No response		25'1"-26'2": pinhole diameter responses, 5-10 per inch	25'0"-25'9": 75 -80% 25'9"-26'2": 40 -50%		25'0": 61.6 ppm 25'6": 74.3 ppm		
26						26'0": 84.4 ppm		

PR1-6

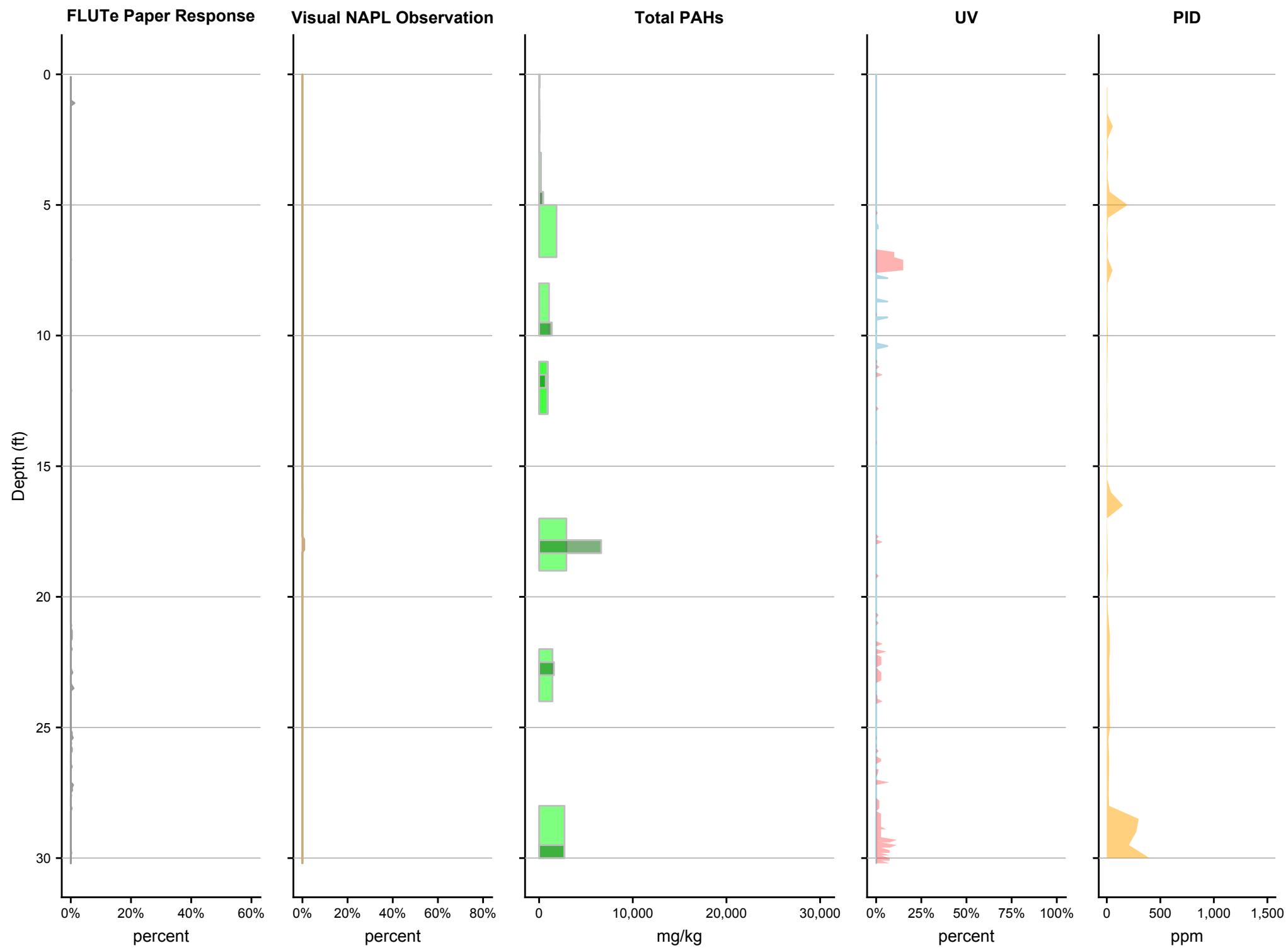


LOCATION: PR1-6 DATE: 2/17/2018 TIME: 9:06 LOGGED BY: A. Papalian, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 25'6" NORTHING/EASTING: 718724.84, 633987.22 DEPTH TO TOP OF SEDIMENT: 3.9	Comments:  				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-4'3": No response	0'0"-2'8": stained without sheen	0'0"-0'4": pinhole diameter responses, 2-5 per inch 0'4"-0'11": up to 0.125" fibrous material 0'4"-0'11": pinhole diameter responses, 5 per inch 0'11"-1'10.5": up to 0.125" trace fibrous material 0'11"-1'10.5": pinhole diameter responses, 5-10 per inch	0'0"-1'10.5": No response	0' 0"-0' 4": olive gray, very soft, wet silt 0' 6"-2' 3": dark gray, very soft, wet silt, fibrous material	0'6": 6.5 ppm		
1			1'10.5"-1'11": pinhole responses, 80 per inch 1'11"-2'6": pinhole diameter responses, 30 per inch	1'10.5"-1'11": 20% 1'11"-2'10": pinhole - 0.125" diameter responses, 10% coverage	at 1' 11": plant material	1'0": 0.3 ppm; 1'6": 0.2 ppm		
2		2'8"-2'9": stained with light sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch at 2'9": stained with heavy sheen (0.125" diameter) 2'9"-3'10": stained with light sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch	2'6"-3'10": up to 1" fibrous material 2'6"-3'10": pinhole-0.125" diameter responses, 50 per inch at 2'9": 1 - 1" x 0.25" response	2'10"-3'4": pinhole - 0.25" diameter responses, 10% coverage	2' 3"-3' 10": olive gray, very soft, wet silt, fibrous material	2'0": 5.6 ppm; 2'6": 5.5 ppm		
3		3'10"-3'11": stained without sheen, 1 - 0.50-0.5" diameter diameter NAPL droplet 3'11"-5'2": stained with sheen	3'10"-4'7": 0.125" diameter responses, 5-10 per inch 3'10"-6'3": 0.25" trace fibrous material	3'4"-3'10": No response 3'10"-3'11.5": 50% 3'11.5"-5'8": 5-10%	3' 10"-5' 2": olive gray, moist	3'0": 3.3 ppm; 3'6": 2.7 ppm		
4	4'3"-4'4": 2 pinhole diameter responses 4'4"-11'1": No response		4'7"-5'10": 0.25" diameter responses, 20 per inch		at 4' 9": 2" x 2" glass piece	4'0": 1.5 ppm; 4'6": 1.1 ppm		
5		5'2"-5'10": stained without sheen, 0.125" diameter NAPL droplets, 10-15 per inch 5'10"-6'3": stained without sheen	5'10"-6'3": 0.25" responses, 25 per inch	5'8"-5'10": 40% 5'10"-6'2": 5%	5' 2"-6' 3": very dark gray, moist 5' 10"-6' 3": 2" wood fragment, fiber material	5'0": 2.8 ppm; 5'6": 4.2 ppm		
6		6'3"-9'1": stained with heavy sheen, pinhole diameter NAPL droplet	6'3"-8'3": pinhole-0.125" diameter responses, 20-30 per inch	6'2"-6'3": 30% 6'3"-7'11": 15-20%	6' 3"-11' 3": dark gray, soft, moist silt	6'0": 4.3 ppm; 6'6": 3.1 ppm		
7				7'11"-8'1": 30%				
8			8'3"-8'7": pinhole-0.125" diameter responses, 30-40 per inch at 8'4": 1 - 2" x 0.125" partial band 8'7"-10'6": pinhole-0.125" diameter responses, 20-30 per inch	8'1"-9'1": 15%	8' 3"-8' 6": 3" fibrous woody material at 8' 6": wood chips	8'0": 17.1 ppm; 8'6": 8.7 ppm		
9		9'1"-9'7": stained with heavy sheen, pinhole diameter NAPL droplets, 0-20 per inch 9'7"-10'5": stained with heavy sheen		9'1"-9'4": 90% 9'4"-11'3": 10-15%	9' 1"-9' 5": wood debris <2"	9'0": 12.6 ppm; 9'6": 8.7 ppm		
10		10'5"-11'3": stained with sheen, pinhole diameter NAPL droplets	10'6"-11'3": pinhole diameter responses, 10-15 per inch			10'0": 10.9 ppm; 10'6": 12.9 ppm		

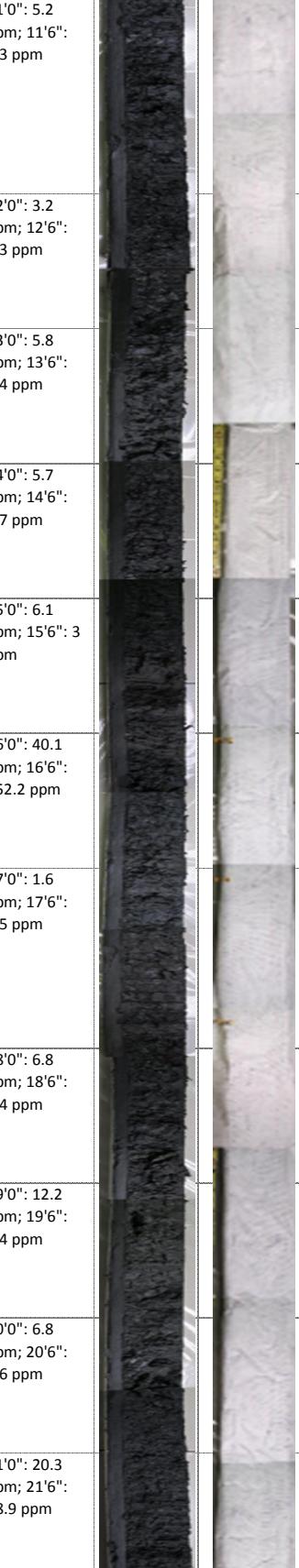
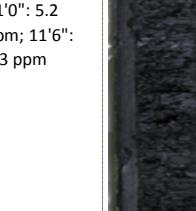
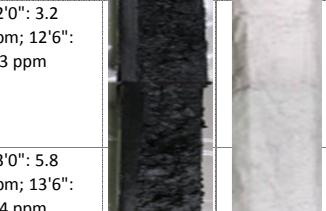
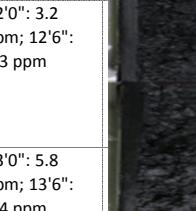
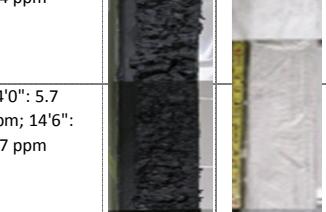
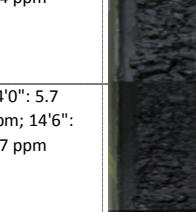
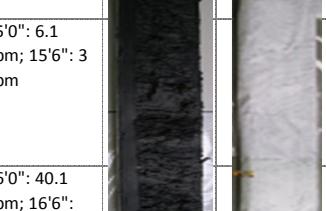
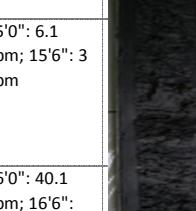
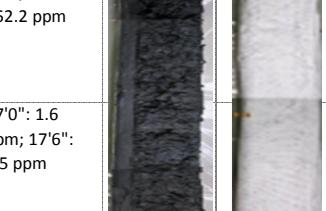
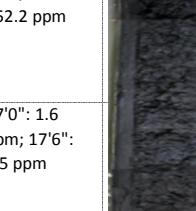
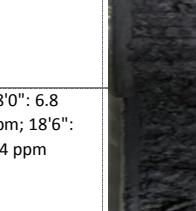
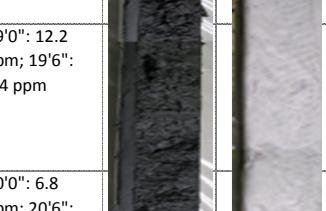
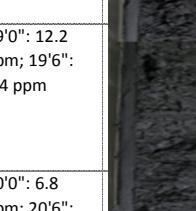
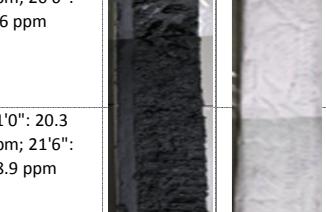
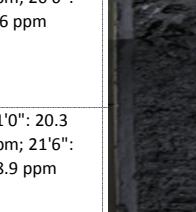
LOCATION: PR1-6 DATE: 2/17/2018 TIME: 9:06 LOGGED BY: A. Papalian, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 25'6" NORTHING/EASTING: 718724.84, 633987.22 DEPTH TO TOP OF SEDIMENT: 3.9	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11	11'1"-11'2": 3 pinhole diameter responses 11'2"-25'6": No response	11'3"-12'5": stained with sheen	11'3"-12'0": up to 0.125" fibrous material, pinhole-0.125" diameter responses, 20-30 per inch	11'3"-11'11": 10% 11'11"-13'3": 30%	11' 3"-13' 0": dark gray, medium soft, moist silt	11'0": 8.5 ppm; 11'6": 6.4 ppm		
12		12'5"-13'0": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	12'0"-16'3": pinhole-0.125" diameter responses, 60-70 per inch 12'0"-16'3": 0.25" fibrous material 12'0"-16'3": pinhole-0.25" diameter responses, 1 per inch at 12'1.5": 0.25" fibrous material	at 12'1.95": 0.25" fibrous material	at 12' 6": plant material	12'0": 6.8 ppm; 12'6": 11.6 ppm		
13		13'0"-15'0": stained with heavy sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch		13'3"-14'3": No response	13' 0"-20' 6": dark gray, firm, moist silt 13' 0"-15' 0": fibrous material at 13' 8": leaves	13'0": 12.9 ppm; 13'6": 12.3 ppm		
14		at 14'2": stained with brownish stain sheen, 1 - 0.25" diameter NAPL droplet		14'3"-15'0": 20%		14'0": 4 ppm; 14'6": 4.5 ppm		
15		15'0"-16'3": stained with sheen, pinhole-0.5" diameter NAPL droplets, 10-15 per inch 15'0"-16'3": stained with sheen, 0.125" x 0.5" NAPL droplets, 2 per inch		15'0"-15'9": 40% 15'9"-16'2": No response		15'0": 6.3 ppm; 15'6": 6.3 ppm		
16		16'3"-16'8": stained with light sheen 16'8"-18'6": stained with light sheen, pinhole diameter NAPL droplets, 20-30 per inch	16'3"-16'10": pinhole diameter responses, 20-30 per inch 16'10"-18'0": pinhole-0.125" diameter responses, 60-70 per inch 16'10"-20'6": up to 0.125" fibrous material	16'2"-16'3": 50% 16'3"-16'5": 20% 16'5"-20'6": 40%		16'0": 2.8 ppm; 16'6": 17.4 ppm		
17				at 17'1": 1 -0.0625" long red fibrous material		17'0": 4.2 ppm; 17'6": 5.6 ppm		
18		18'6"-20'6": stained with light sheen, pinhole-0.25" diameter NAPL droplets, 20-30 per inch	18'0"-18'7": pinhole-0.25" diameter responses, 60-70 per inch 18'4"-18'5": 1 - 1.00" response 18'7"-20'6": pinhole-0.125" diameter responses, 60-70 per inch			18'0": 5.4 ppm; 18'6": 8.4 ppm		
19					at 19' 7": 2" long wood fragment	19'0": 15 ppm; 19'6": 21.3 ppm		
20		20'6"-21'7": stained with sheen	at 20'5": 0.25" fibrous material 20'6"-21'9": pinhole diameter responses, 15-20 per inch	20'6"-21'6": 5%	20' 6"-25' 6": dark gray, medium soft, moist silt, trace clay	20'0": 13.2 ppm; 20'6": 12 ppm		
21		21'7"-21'9": stained with sheen, pinhole-0.25" diameter NAPL droplets, 2-5 per inch 21'9"-22'5": stained with sheen	21'9"-23'4": pinhole diameter responses, 20-25 per inch	21'6"-21'8": 30% 21'8"-22'7": 10%	21' 7"-21' 9": shell fragments	21'0": 23.5 ppm; 21'6": 13.8 ppm		

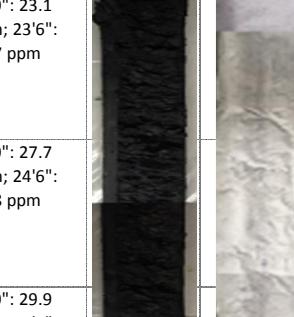
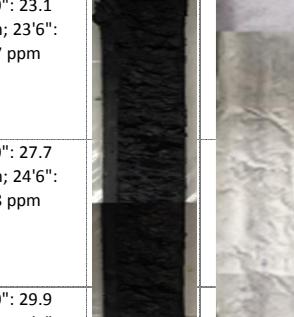
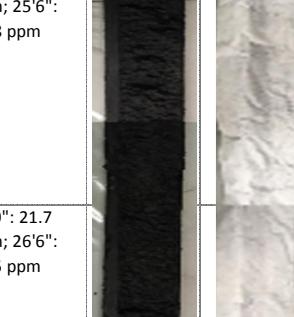
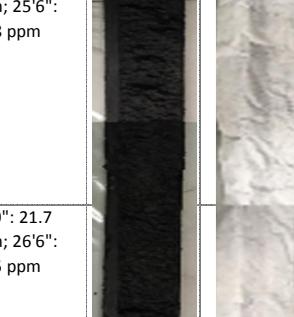
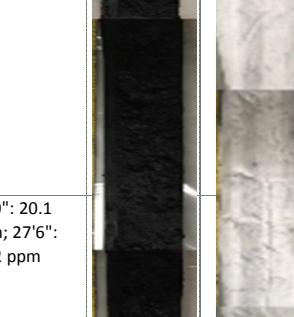
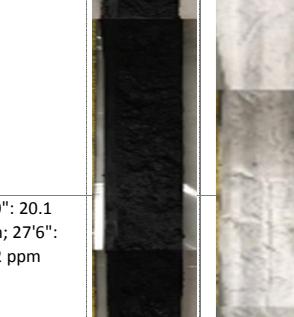
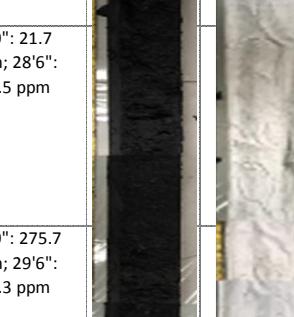
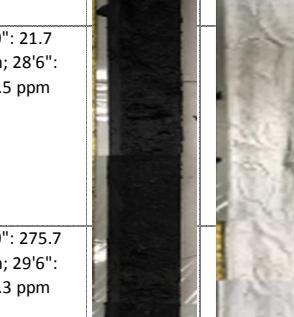
LOCATION: PR1-6 DATE: 2/17/2018 TIME: 9:06 LOGGED BY: A. Papalian, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 25'6" NORTHING/EASTING: 718724.84, 633987.22 DEPTH TO TOP OF SEDIMENT: 3.9	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22		22'5"-22'8.5": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 22'8.5"-23'4": stained with sheen, pinhole-0.125" diameter NAPL droplets, 1-2 per inch		22'7"-22'8": 15% 22'8"-23'2": 10%		22'0": 16.2 ppm; 22'6": 29.2 ppm		
23		23'4"-24'5": stained with sheen, pinhole-0.25" diameter NAPL droplets, 2-5 per inch	23'4"-25'6": 0.125" responses, 30-40 per inch	23'2"-23'4": 40% 23'4"-24'0": 10-15%		23'0": 36.7 ppm; 23'6": 55.9 ppm		
24		24'5"-25'3": stained with sheen, pinhole diameter NAPL droplets		24'0"-24'5": 25% 24'5"-25'2": 20%		24'0": 45.6 ppm; 24'6": 47.4 ppm		
25		25'3"-25'6": stained with sheen, 0.25" NAPL droplets		25'2"-25'6": 40%		25'0": 35 ppm; 25'6": 40.6 ppm		

PR1-6-1



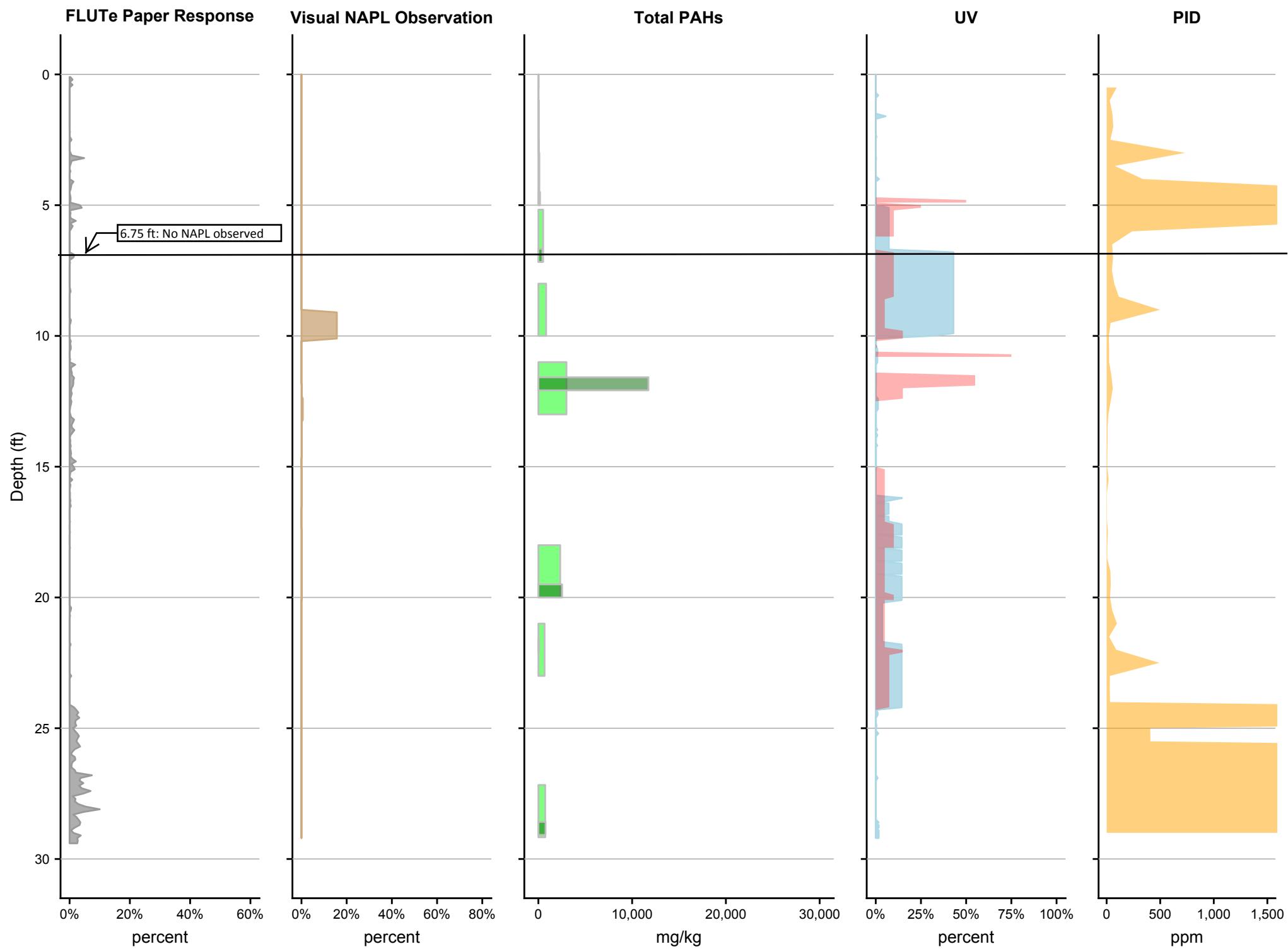
LOCATION: PR1-6-1 DATE: 3/5/2018 TIME: 10:10 LOGGED BY: D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'2" NORTHING/EASTING: 718697.72, 634007.35 DEPTH TO TOP OF SEDIMENT: 5.5	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-7'0": No response	0'0"-2'10": stained without sheen	0'0"-1'9": No response	0'0"-5'4": No response	0' 0"-4' 10": olive gray, soft, wet silt, trace clay at 0' 1": 0.125" diameter white shell fragment	0'6": 5.8 ppm		
1			at 1'9": 1 - pinhole diameter response 1'9"-2'3": No response			1'0": 5.5 ppm; 1'6": 5.8 ppm		
2		2'10"-10'1": stained with sheen	at 2'3": 1 - pinhole diameter response 2'3"-2'11": No response at 2'11": 6 - pinhole diameter responses 2'11"-3'3": No response			2'0": 56.1 ppm; 2'6": 5.2 ppm		
3			3'3"-3'10": pinhole diameter responses, 0-2 per inch 3'10"-4'0": No response			3'0": 13 ppm; 3'6": 5.2 ppm		
4			4'0"-4'11": pinhole diameter responses, 2 per inch 4'11"-5'5": pinhole diameter responses, 4 per inch		4' 10"-10' 3": dark gray, soft, wet silt, trace clay	4'0": 8.4 ppm; 4'6": 28.3 ppm		
5			5'5"-5'9": pinhole diameter responses, 2-5 per inch 5'9"-5'11": 4 - pinhole diameter responses 5'9"-5'11": 0.125" x 0.25" wide lines 5'11"-9'2": pinhole diameter responses, 5 per inch	5'4"-6'10": No response at 5'4": 5 - pinhole-0.125" diameter responses	at 5' 10": leaf and twig fragments at 5' 11": 0.125" diameter trace white shell fragments	5'0": 194.8 ppm; 5'6": 10.1 ppm		
6				6'10"-7'1": 10%	at 6' 4": trace of wood fragmets	6'0": 4.8 ppm; 6'6": 12.3 ppm		
7	at 7'0": 1 pinhole diameter response 7'0"-30'2": No response		at 7'10": 1 - 0.0625" horizontal layer	7'1"-7'6": 10 -20% 7'6"-9'3": No response	at 7' 9": trace twigs and leaf fragments	7'0": 6 ppm; 7'6": 53.5 ppm		
8			at 8'8": 1 - 0.0625" horizontal layer		8' 8"-10' 10": trace fibrous material	8'0": 8.2 ppm; 8'6": 5.6 ppm		
9		9'6"-10'0": None	9'2"-9'10": pinhole diameter responses, 5-10 per inch at 9'4": 1 - 0.0625" horizontal layer response 9'10"-10'11": pinhole diameter responses, 5 per inch	at 9'3": 1 - 0.125" diameter response 9'3"-9'10": No response 9'10"-11'0": No response at 9'10": 1 - 0.125" diameter response		9'0": 6.2 ppm; 9'6": 7.8 ppm		
10		10'1"-10'11": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch 10'11"-11'10": stained with sheen	at 10'5": 1 - 0.0625" horizontal layer response 10'11"-11'6": pinhole diameter responses, 5-10 per inch		10' 3"-10' 11": dark gray, medium soft, wet silt, trace clay 10' 11"-11' 4": dark grey, medium soft, very moist silt, trace clay, trace fibrous material	10'0": 10.1 ppm; 10'6": 7.7 ppm		

LOCATION: PR1-6-1 DATE: 3/5/2018 TIME: 10:10 LOGGED BY: D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'2" NORTHING/EASTING: 718697.72, 634007.35 DEPTH TO TOP OF SEDIMENT: 5.5	Comments: 					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper	
11		at 11'10": stained with sheen, 1 - pinhole diameter NAPL droplet 11'10"-14'6": stained with sheen	11'6"-11'11": pinhole diameter responses, 5 per inch 11'11"-12'7": pinhole diameter responses, 2-5 per inch	at 11'0": 2 -0.125" diameter responses 11'0"-11'2": No response 11'2"-11'6": No response at 11'2": 1 - 0.5" x 0.125" response 11'6"-12'10": No response at 11'6": 2 - 0.5" x 0.125" responses	11' 4"-14' 9": olive gray, medium soft, very moist silt, trace clay, trace fibrous material	11'0": 5.2 ppm; 11'6": 5.3 ppm			
12			12'7"-14'2": pinhole diameter responses, 0-2 per inch	at 12'10": 1 - 0.25" diameter response 12'10"-14'1": No response		12'0": 3.2 ppm; 12'6": 3.3 ppm			
13						13'0": 5.8 ppm; 13'6": 4.4 ppm			
14		at 14'6": stained with sheen, 3 - pinhole diameter diameter NAPL droplets 14'6"-15'10": stained with sheen	14'2"-14'9": pinhole diameter responses, 2-5 per inch 14'9"-15'11": pinhole diameter responses, 0-2 per inch	at 14'1": 1 -0.125" diameter response 14'1"-17'8": No response	14' 9"-15' 10": olive gray, medium stiff, very moist silt, trace clay, trace fibrous material	14'0": 5.7 ppm; 14'6": 3.7 ppm			
15		15'10"-15'11": stained with sheen, 3 - pinhole diameter diameter NAPL droplets 15'11"-16'7": stained with sheen, 0.125" NAPL droplets, 0-2 per inch	15'11"-16'7": pinhole diameter responses, 2-5 per inch		15' 10"-15' 11": dark gray, medium stiff, very moist silt, trace clay, trace fibrous material 15' 11"-16' 7": dark gray, stiff, moist silt, trace clay, trace fibrous material	15'0": 6.1 ppm; 15'6": 3 ppm			
16		16'7"-17'10": stained with sheen	16'7"-16'11": pinhole diameter responses, 5 per inch 16'11"-17'7": pinhole diameter responses, 2-5 per inch		16' 7"-20' 11": olive gray, stiff, moist silt, trace clay, trace fibrous material	16'0": 40.1 ppm; 16'6": 152.2 ppm			
17		17'10"-18'2": stained with sheen, 0.25" NAPL droplets, 2-5 per inch	17'7"-18'11": pinhole diameter responses, 10-15 per inch	at 17'8": 1 - 0.25" diameter response 17'8"-17'11": No response at 17'11": 1 - 0.125" diameter response at 17'11": 1 - 0.25" x 0.5" response 17'11"-19'2": No response			17'0": 1.6 ppm; 17'6": 4.5 ppm		
18		18'2"-19'4": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	18'11"-19'7": pinhole diameter responses, 5-10 per inch				18'0": 6.8 ppm; 18'6": 8.4 ppm		
19		19'4"-20'11": stained with sheen	19'7"-20'4": pinhole diameter responses, 10-15 per inch	at 19'2": 4 -0.125" diameter responses 19'2"-20'8": No response			19'0": 12.2 ppm; 19'6": 4.4 ppm		
20		20'11"-22'5": stained with heavy sheen	20'4"-20'11": pinhole diameter responses, 15 per inch 20'11"-25'2": pinhole diameter responses, 15-20 per inch	20'8"-20'10": No response at 20'8": 1 - 0.25" diameter response 20'10"-21'0": No response at 20'10": 1 - pinhole diameter response	20' 11"-24' 1": dark gray, firm, moist silt, trace clay		20'0": 6.8 ppm; 20'6": 9.6 ppm		
21				at 21'0": 1 - 0.25" diameter response 21'0"-21'9": No response at 21'9": 1 - 0.25" x 0.5" response 21'9"-22'1": No response			21'0": 20.3 ppm; 21'6": 28.9 ppm		

LOCATION: PR1-6-1 DATE: 3/5/2018 TIME: 10:10 LOGGED BY: D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'2" NORTHING/EASTING: 718697.72, 634007.35 DEPTH TO TOP OF SEDIMENT: 5.5	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22		22'5"-24'3": stained with heavy sheen, NAPL droplets, 0-5 per inch		at 22'1": 1 - 0.5" diameter response 22'1"-22'4": No response 22'4"-22'7": pinhole-0.25" diameter responses, 2-4 per inch 22'7"-22'9": No response at 22'9": 1 - 0.25" diameter response 22'9"-22'11": No response 22'11"-23'2": pinhole-0.25" diameter responses, 2-4 per inch	at 22' 2": 0.25" shell	22'0": 28.4 ppm; 22'6": 22.6 ppm		
23				23'2"-23'7": No response at 23'7": 1 - 0.125" diameter response 23'7"-23'9": No response 23'9"-24'0": pinhole-0.125" diameter responses, 2-4 per inch		23'0": 23.1 ppm; 23'6": 23.7 ppm		
24		24'3"-25'2": stained with sheen		at 24'0": 1 - 0.125" x 1" response 24'0"-25'5": No response	24' 1"-28' 4": dark olive gray, firm, moist silt, trace clay	24'0": 27.7 ppm; 24'6": 25.8 ppm		
25		25'2"-26'6": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	25'2"-30'2": pinhole diameter responses, 10-15 per inch	at 25'5": 1 - 0.125" diameter response 25'5"-25'8": No response at 25'8": 1 - 0.125" diameter response 25'8"-25'11": No response 25'11"-26'3": No response at 25'11": 1 - 0.25" diameter response		25'0": 29.9 ppm; 25'6": 13.8 ppm		
26		26'6"-27'7": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch		26'3"-26'4": 15 - pinhole-0.125" diameter responses 26'3"-26'7": No response at 26'7": 1 - 0.25" diameter response 26'7"-26'8": No response at 26'8": 3 --0.125" diameter responses 26'8"-26'9": No response at 26'9": 2 - 0.125" diameter responses 26'9"-27'1": No response		26'0": 21.7 ppm; 26'6": 22.5 ppm		
27		27'7"-28'3": stained with sheen		27'1"-27'10": No response at 27'1": 1 - 0.25" x 1" response at 27'1": 2 - 0.25" diameter responses 27'10"-28'1": pinhole-0.125" diameter responses, 5-10 per		27'0": 20.1 ppm; 27'6": 18.2 ppm		
28		28'3"-30'2": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch		28'1"-28'4": No response 28'4"-30'2": pinhole-0.125" diameter responses, 10-15 per inch at 28'9": 1 - 0.125" diameter response at 28'11": 1 - 0.5" diameter response	28' 4"-30' 2": olive gray, firm, moist silt, trace clay	28'0": 21.7 ppm; 28'6": 298.5 ppm		
29				at 29'2": 1 - 0.25" diameter response at 29'4": 2 - 0.5" diameter responses 29'5"-30'2": 5 - 10% at 29'6": 2 - 0.5" diameter responses		29'0": 275.7 ppm; 29'6": 206.3 ppm		

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Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
30						30'0": 399.7 ppm		

PR1-7

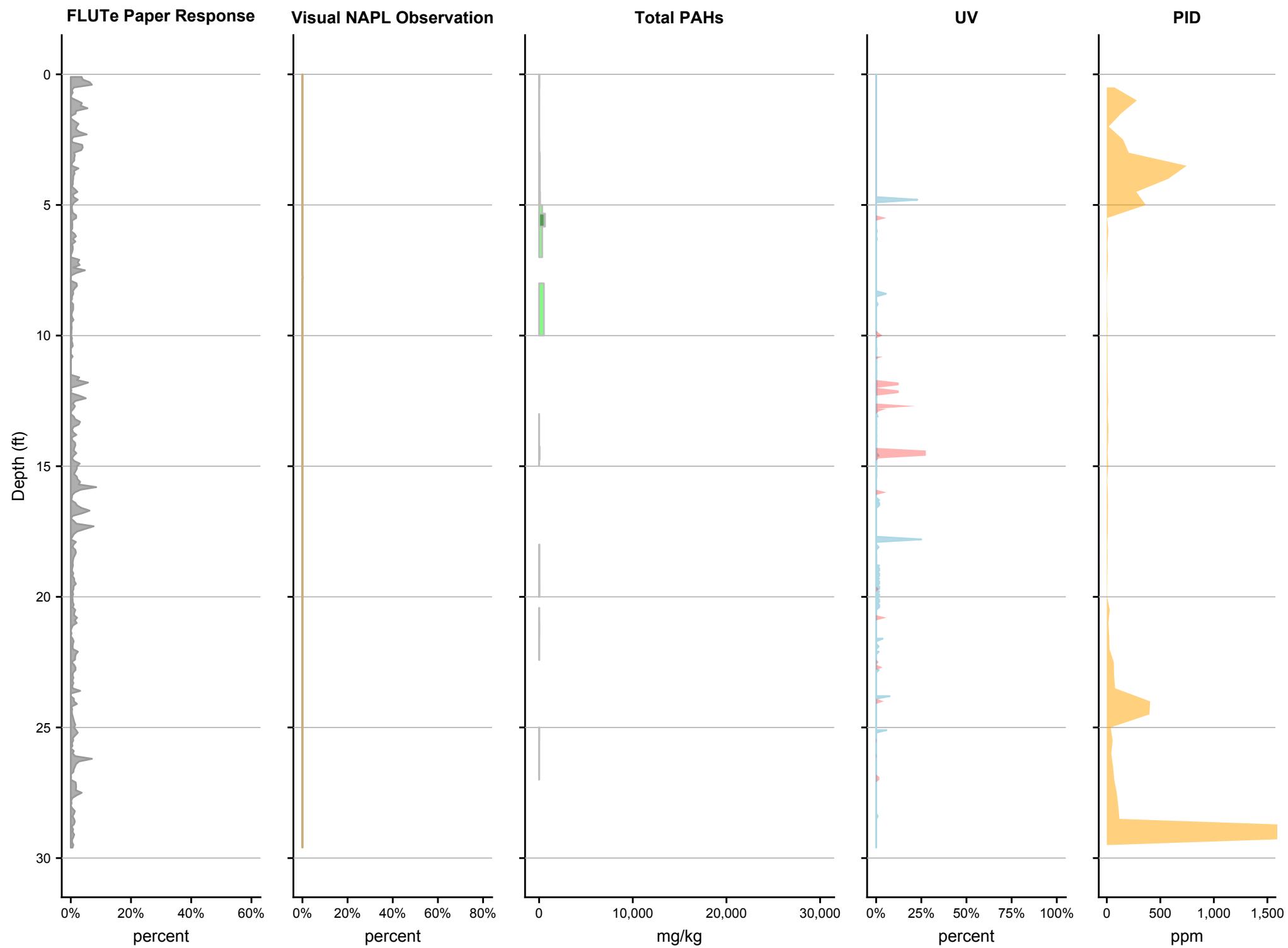


LOCATION: PR1-7 DATE: 2/8/2018 TIME: 11:58 LOGGED BY: E. Emery, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'2" NORTHING/EASTING: 718691.5, 634092.88 DEPTH TO TOP OF SEDIMENT: 2	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-6'10" No response	0'0"-4'8": stained without sheen	0'0"-1'9": pinhole diameter responses, 0-5 per inch at 0'9": 1 - 0.25" response	0'0"-4'9": No response	0' 0"-0' 0.5": olive gray, loose, wet 0' 0"-5' 1": ~7 shells found throughout 0' 0.5"-0' 6": dark gray, very loose, wet silt 0' 6"-3' 4": dark gray, soft, wet silt	0'6": 94 ppm		
1			at 1'7": 1 - 0.25" x 0.75" response 1'9"-4'9": pinhole diameter responses, 5-10 per inch			1'0": 29.3 ppm; 1'6": 54.1 ppm		
2			at 2'5": 1 - 0.5" fibrous response		2' 0"-3' 0": slugs found in half of core used for flute paper	2'0": 62.4 ppm; 2'6": 35.4 ppm		
3			at 3'3": 1 - 0.25" fibrous response		3' 4"-4' 11": olive gray, medium soft, wet silt	3'0": 733 ppm; 3'6": 76.2 ppm		
4		4'8"-5'1": stained with sheen	at 4'0": 1 - 0.125" x 0.5" response 4'9"-4'10": No response 4'10"-5'0": pinhole diameter responses, 5-10 per inch	4'9"-4'10.5": 50% 4'10.5"-5'0": No response	4' 11"-5' 1": dark gray, medium soft, wet silt	4'0": 337.6 ppm; 4'6": 2915 ppm		
5		5'1"-6'5": stained with sheen	5'0"-5'1": pinhole diameter responses, 15-20 per inch 5'1"-6'9.5": pinhole-0.125" diameter responses, 30-40 per inch	5'0"-5'1": 25% 5'1"-6'2": 10%	5' 1"-6' 5": dark gray, soft, moist silt	5'0": 3185 ppm; 5'6": 2904 ppm		
6	6'10"-6'11": 0.5" x 0.75" response; colors bleeding through 6'11"-9'5": No response	6'5"-7'5": stained with sheen, pinhole diameter NAPL droplets, 30-40 per inch	at 6'9.5": 1 - 0.25" fibrous response 6'9.5"-9'4": pinhole-0.25" diameter responses, 50-60 per inch	6'2"-6'9": No response 6'9"-8'6": 10%	6' 5"-7' 5": very dark gray, soft, moist silt	6'0": 239 ppm; 6'6": 51.8 ppm		
7		7'5"-8'9": stained with heavy sheen			7' 5"-8' 9": dark gray, soft, moist silt	7'0": 60.4 ppm; 7'6": 49.8 ppm		
8		8'9"-9'1.5": stained with sheen		at 8'6": 1 - 0.5" x 0.125" response 8'6"-9'9": 5%	8' 9"-9' 1.5": dark gray, medium fine sand cobbles 3" x 2"	8'0": 71.8 ppm; 8'6": 114 ppm		
9	at 9'5": 1 - pinhole - 0.125" diameter response 9'5"-11'7": No response	9'1.5"-10'1": stained with sheen, 1.5" diameter NAPL droplets, 2-5 per inch	9'4"-9'7": pinhole-0.25" diameter responses, 50-60 per inch at 9'4": 1 - 0.5" fibrous response 9'7"-9'11": pinhole-0.25" diameter responses, 50-60 per inch at 9'7": partial band approximately 18" thick by 2" long 9'11"-10'0": 30% coverage	at 9'9": 1 - 0.5" x 0.25" response 9'9"-10'1": 15%	9' 1.5"-10' 1": dark gray, soft, moist silt	9'0": 499 ppm; 9'6": 37.8 ppm		

LOCATION: PR1-7 DATE: 2/8/2018 TIME: 11:58 LOGGED BY: E. Emery, M. Conlon DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'2" NORTHING/EASTING: 718691.5, 634092.88 DEPTH TO TOP OF SEDIMENT: 2	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
10		10'1"-11'3": stained with sheen	10'0"-10'1": No response 10'1"-11'11": pinhole diameter responses, 25-30 per inch 10'6"-11'0": 6 - 0.125" partial bands	10'1"-10'5": No response at 10'5": 1 - 0.125" x 0.25" response 10'5"-10'8": No response 10'8"-10'9": 75% 10'9"-11'6": No response	10' 1"-14' 4": dark gray, medium stiff, moist 10' 1"-15' 1": trace fibrous material at 10' 8.5": concentrated layer of fibrous material	10'0": 21.2 ppm; 10'6": 23.3 ppm		
11	11'7"-11'10": 4 pinhole diameter responses 11'10"-12'4": No response	at 11'3": stained with sheen, 1 - NAPL droplet 11'3"-11'7": stained with sheen 11'7"-11'11": stained with sheen, NAPL droplets, 5-10 per inch 11'11"-12'5": stained with sheen, pinhole-0.125" diameter NAPL droplets	11'11"-12'5": pinhole diameter responses, 10-15 per inch	11'6"-11'11": 50-60% 11'11"-12'5": 15%	at 11' 7": concentrated layer of fibrous material	11'0": 23.6 ppm; 11'6": 43.8 ppm		
12	at 12'4": 1 pinhole diameter response 12'4"-12'6.5": No response at 12'6.5": 1 pinhole diameter response 12'6.5"-13'7": No response	12'5"-13'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 0-5 per inch	12'5"-12'9.5": 6 - 0.125" partial layers 12'9.5"-15'1": pinhole diameter responses, 25-30 per inch	12'5"-15'1": No response	at 12' 8": concentrated layer of fibrous material	12'0": 57.5 ppm; 12'6": 37.9 ppm		
13	at 13'7": 1 pinhole diameter response 13'7"-19'6": No response	13'2"-14'7": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	at 13'7": 1 - 0.125" x 0.25" response at 13'10": 1 - 0.25" band		at 13' 10": concentrated layer of fibrous material	13'0": 16.8 ppm; 13'6": 9 ppm		
14		14'7"-15'1": stained with sheen	at 14'3": 1 - 0.125" partial band		14' 4"-15' 1": dark olive gray, medium stiff, moist	14'0": 8.8 ppm; 14'6": 7.2 ppm		
15		15'1"-16'6": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch	15'1"-20'1": trace fibrous material 15'1"-15'8": pinhole diameter responses, 5-10 per inch 15'8"-16'4": pinhole diameter responses, 5 per inch	15'1"-17'2": 5%	15' 1"-16' 6": very dark gray, medium soft, moist silt	15'0": 6.2 ppm; 15'6": 18.5 ppm		
16		16'6"-17'5": stained with sheen, pinhole diameter NAPL droplets	at 16'2": 1 - 2" partial band 16'4"-17'3": pinhole-0.25" diameter responses, 5-10 per inch		16' 6"-20' 1": dark gray, medium soft, moist silt	16'0": 2.8 ppm; 16'6": 3.7 ppm		
17		17'5"-20'1": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch	17'3"-20'1": pinhole-0.25" diameter responses, 20 per inch	17'2"-18'1": 10%		17'0": 2.9 ppm; 17'6": 12.3 ppm		
18				18'1"-19'10.5": 5% at 18'9.5": 1 - 0.125" diameter response		18'0": 6.9 ppm; 18'6": 5.7 ppm		
19	at 19'6": 1 - 0.125" diameter response 19'6"-21'7": No response			19'10.5"-20'1": 10%		19'0": 35.6 ppm; 19'6": 38.8 ppm		

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Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
20		20'1"-20'6": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch 20'6"-24'2": stained with heavy sheen	20'1"-21'9": pinhole-0.125" diameter responses, 15-20 per inch	20'1"-22'0": 5%	20' 1"-24' 2": dark gray, medium soft, moist	20'0": 32.4 ppm; 20'6": 52.9 ppm		
21	at 21'7": 1 pinhole diameter response 21'7"-25'3": No response		21'9"-24'2": pinhole-0.25" diameter responses 21'9"-24'2": 0.25" trace fibrous material			21'0": 96.3 ppm; 21'6": 23.8 ppm		
22				22'0"-22'1": 15% 22'1"-24'2": 5-10%		22'0": 90 ppm; 22'6": 493.5 ppm		
23						23'0": 30.8 ppm; 23'6": 29.4 ppm		
24		24'2"-29'2": stained without sheen	24'2"-29'2": pinhole diameter responses, 15-20 per inch 24'5"-24'6": 3 - 0.125" responses at 24'11": 2 - 0.25" fibrous segments	24'2"-29'2": No response	24' 2"-29' 2": dark olive gray, firm, moist clayey silt	24'0": 32.3 ppm; 24'6": 10000 ppm		
25	at 25'3": 1 possible spot response 25'3"-29'2": No response		at 25'2.5": 1 - 0.25" response			25'0": 407 ppm; 25'6": 409 ppm		
26			at 26'10.5": 3 - 0.125" responses		at 26' 3": shell fragment 0.125"	26'0": 10000 ppm; 26'6": 3600 ppm		
27						27'0": 10000 ppm; 27'6": 10000 ppm		
28			28'7"-29'2": 8 - 0.25" responses			28'0": 10000 ppm; 28'6": 10000 ppm		
29						29'0": 10000 ppm		

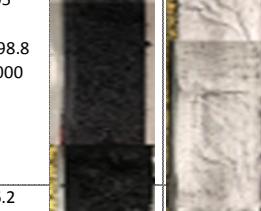
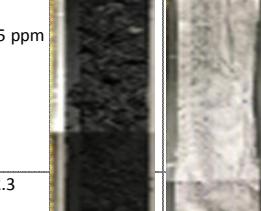
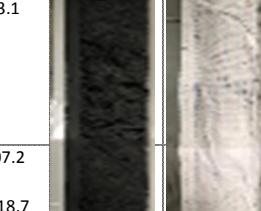
PR1-7-1



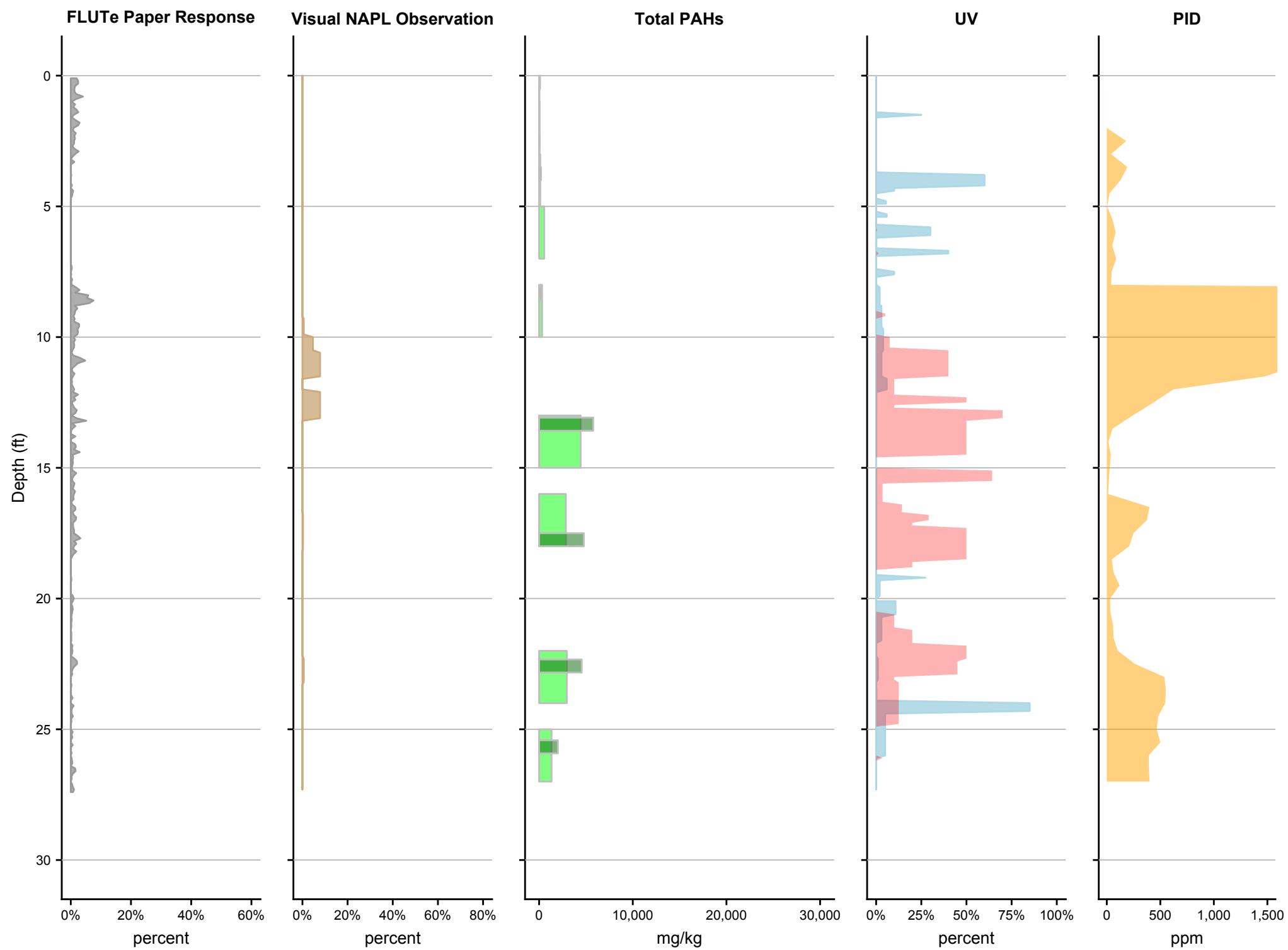
LOCATION: PR1-7-1 DATE: 3/9/2018 TIME: 10:30 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'7" NORTHING/EASTING: 718671.43, 634135.4 DEPTH TO TOP OF SEDIMENT: 2.4	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-14'5": No response	0'0"-4'2": stained without sheen	0'0"-0'3": No response 0'3"-4'1": response, 0-5 per inch	0'0"-5'6": No response	0'0"-0' 2": olive gray, loose, wet silt 0' 2"-2' 9": dark olive gray, very soft, wet silt at 0' 4.5": 1" x 0.5" shell fragment at 0' 6": 1" x 0.5" shell fragment	0'6": 72.2 ppm		
1						1'0": 281.1 ppm 1'6": 133.6 ppm		
2					2' 9"-4' 2": dark olive gray, olive gray, soft, moist silt, trace clay (dark olive gray transitioning to olive gray)	2'0": 18.3 ppm 2'6": 152.4 ppm		
3						3'0": 204.8 ppm 3'6": 746.6 ppm		
4		4'2"-5'3": light stained without sheen	4'1"-8'4": responses, 5-10 per inch at 4'10": 1 - 1.00" response		4' 2"-5' 3": olive gray, medium soft, moist silt, trace clay	4'0": 574.4 ppm 4'6": 275.7 ppm		
5		5'3"-9'8": stained with light sheen 5'5"-5'9": None		5'6"-9'11": No response at 5'6": 1 - 0.5" diameter response	at 5' 0": 0.25" x 0.5" shell fragmnt 5' 3"-8' 10": dark gray, medium soft, moist silt, trace clay, trace fibrous material	5'0": 365 ppm 5'6": 3.9 ppm		
6			at 6'0": 2 - 0.25" fibrous materials at 6'4": 2 - 0.25" fibrous materials			6'0": 14.1 ppm 6'6": 6.3 ppm		
7		at 7'9.5": stained with light sheen, sheen spot sheen, 1 - 0.25" diameter NAPL droplet				7'0": 11.2 ppm 7'6": 8.1 ppm		

LOCATION: PR1-7-1 DATE: 3/9/2018 TIME: 10:30 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'7" NORTHING/EASTING: 718671.43, 634135.4 DEPTH TO TOP OF SEDIMENT: 2.4	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
8			8'4"-15'5": pinhole diameter responses, 10-15 per inch at 8'5": 4 - 0.0625" x 0.75" partial fibrous layer responses at 8'9": 1 - 0.125" x 0.25" response		8'10"-12' 2": dark gray, firm, moist silt, trace clay, trace fibrous material	8'0": 1.7 ppm 8'6": 2.6 ppm		
9		9'8"-10'3": stained with sheen		9'11"-10'0": No response at 9'11": 1 - 0.25" diameter response		9'0": 3.6 ppm 9'6": 6.6 ppm		
10		10'1"-10'2": None 10'3"-10'6": stained with light sheen 10'6"-14'6": stained with sheen	10'6"-15'5": 0.25" fibers, 0-2 per inch	10'0"-10'2": No response at 10'0": 1 - 0.5" x 0.25" response 10'2"-10'9": No response at 10'2": 1 - pinhole diameter response 10'9"-11'10": No response at 10'9": 1 - 0.25" x 0.5" response		10'0": 5.3 ppm 10'6": 6.5 ppm		
11		11'11"-14'6": None		11'10"-11'11": 10 - 15% 11'11"-12'1": No response		11'0": 6.7 ppm 11'6": 7.7 ppm		
12				12'1"-12'3": 10 - 15% 12'3"-12'8": No response 12'8"-12'10": No response at 12'8": 1 - 1" x 0.75" response 12'10"-12'11": No response at 12'10": 1 - 0.5" diameter response at 12'11": 1 - 0.25" diameter response 12'11"-14'5": No response	12'2"-13' 0": olive gray, firm, moist silt, trace clay, trace fibrous material	12'0": 8.9 ppm 12'6": 12.9 ppm		
13			at 13'1": 1 - 0.125" x 0.25" response		13' 0"-13' 7": dark gray, firm, moist silt, trace clay, trace fibrous material 13' 7"-14' 5": olive gray, firm, moist silt, trace clay, trace fibrous material	13'0": 8.5 ppm 13'6": 14.9 ppm		
14	14'5"-14'7": 4 pinhole diameter responses 14'7"-29'7": No response	14'6"-15'5": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch	at 14'7": 1 - 0.0625" partial band	14'5"-14'7": 25 - 30% 14'7"-14'8": No response at 14'8": 1 - 0.25" diameter response 14'8"-16'0": No response	14'5"-17' 10": dark gray, firm, moist silt, trace clay, trace fibrous material at 14' 11": thick paper-like material	14'0": 13 ppm 14'6": 7.9 ppm		
15		15'5"-17'8": stained with sheen	15'5"-18'5": pinhole diameter responses, 5-10 per inch			15'0": 13.5 ppm 15'6": 4.4 ppm		

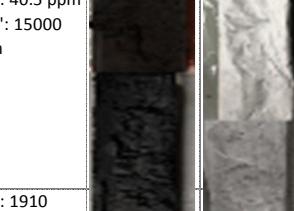
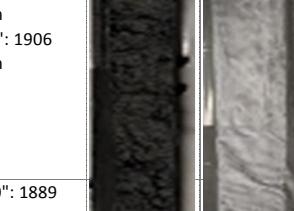
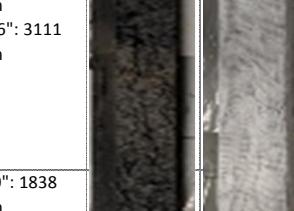
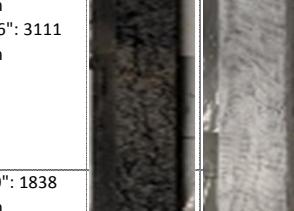
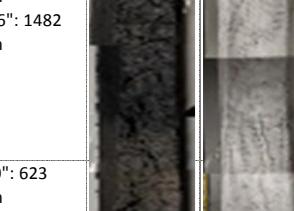
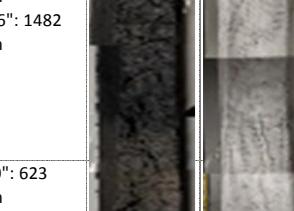
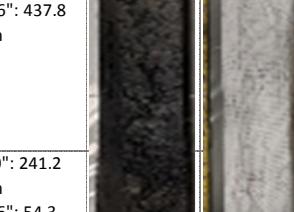
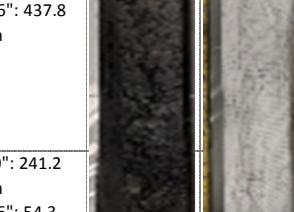
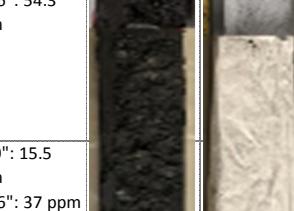
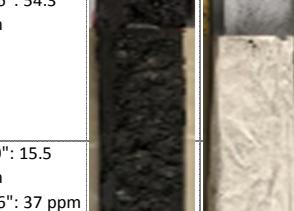
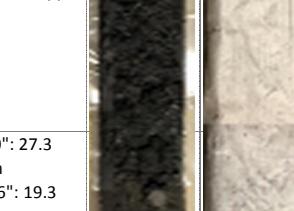
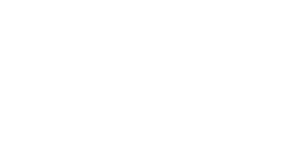
LOCATION: PR1-7-1 DATE: 3/9/2018 TIME: 10:30 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'7" NORTHING/EASTING: 718671.43, 634135.4 DEPTH TO TOP OF SEDIMENT: 2.4	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
16			16'4"-16'6": 0.25" fibrous materials, 5-10 per inch	at 16'0": 4 - 0.25" diameter responses 16'0"-19'8": No response		16'0": 9.6 ppm 16'6": 11.2 ppm		
17		17'8"-17'10": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch 17'10"-19'3": stained with sheen	at 17'4": 1 - 0.125" partial band at 17'9": 2 - 0.125" partial bands, extending across core's diameter, spaced 0.25" apart		at 17' 8": incomplete layer of pressed material <0.125" thick 17' 10"-18' 4": olive gray, firm, moist silt, trace clay, trace fibrous material	17'0": 9.9 ppm 17'6": 9.9 ppm		
18			at 18'1": 1 - 0.25" response 18'5"-20'5": pinhole diameter responses, 25-30 per inch 18'9"-20'5": 0.25" fibrous material, 5-10 per inch at 18'10": 1 - 0.25" response		18' 4"-20' 5": dark gray, firm, moist silt, trace clay, trace fibrous material	18'0": 5.4 ppm 18'6": 8 ppm		
19		19'3"-20'2": stained with sheen, pinhole diameter NAPL droplets, 0-5 per inch			19'8"-20'9": No response at 19'8": 1 - 0.25" diameter response			
20		20'2"-20'5": stained with sheen 20'5"-20'8": stained with sheen 20'8"-21'10": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	at 20'1": 2 - 0.125" responses 20'5"-29'7": pinhole diameter responses, 5-10 per inch	20'9"-20'10": No response at 20'9": 1 - 0.25" diameter response 20'10"-22'6": No response at 20'10": 1 - 0.5" diameter response	20'5"-22' 6": dark gray, firm, moist silt, trace clay	20'0": 3.3 ppm 20'6": 27.8 ppm		
21		21'10"-22'6": stained with sheen	at 21'7": 1 - 0.25" x 0.5" response at 21'11": 1 - 0.25" response					
22		at 22'6": stained with sheen, 1 - pinhole diameter diameter NAPL droplet 22'6"-27'7": stained with sheen	at 22'1": 1 - 0.25" response at 22'9": 1 - 0.25" response	at 22'6": 1 - 0.25" diameter response 22'6"-22'8": No response at 22'8": 1 - 0.25" x 0.5" response 22'8"-24'0": No response	at 22' 2": <0.125" thick fine sand layer, but primarily silt 22' 6"-23' 9": olive gray, firm, moist silt, trace clay	22'0": 25.5 ppm 22'6": 65.5 ppm		
23			23'9"-23'10": 5 - 10%		23' 9"-24' 7": dark olive gray, firm, moist silt, trace clay	23'0": 68.1 ppm 23'6": 77.4 ppm		

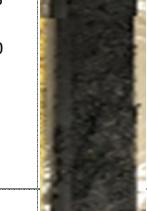
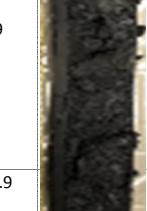
LOCATION: PR1-7-1 DATE: 3/9/2018 TIME: 10:30 LOGGED BY: E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'7" NORTHING/EASTING: 718671.43, 634135.4 DEPTH TO TOP OF SEDIMENT: 2.4	Comments: 				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
24				24'0"-25'6": No response at 24'0": 3 - 0.25" diameter responses	24'7"-26'9": dark gray, firm, moist silt, trace clay	24'0": 405 ppm 24'6": 398.8 ppm, 15000 ppm		
25			at 25'1": 1 - 0.50" response due to plastic/rubber	25'6"-26'1": No response at 25'6": 1 - 0.125" diameter response	at 25' 1": crumpled plastic, rubber stretchy material 1.5" x 2"	25'0": 36.2 ppm 25'6": 55 ppm		
26				26'1"-26'11": No response at 26'4": 1 - 0.125" diameter response 26'11"-27'0": 10 - pinhole-0.125" diameter responses	26'9"-29' 7": olive gray, firm, moist silt, trace clay	26'0": 42.3 ppm 26'6": 58.4 ppm		
27		27'7"-29'7": stained with light sheen		27'0"-29'7": No response		27'0": 69.7 ppm 27'6": 93.1 ppm		
28			at 28'5": 1 - 0.125" x 0.25" response			28'0": 107.2 ppm 28'6": 118.7 ppm		
29						29'0": 3630 ppm 29'6": 24.8 ppm		

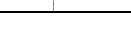
PR1-8



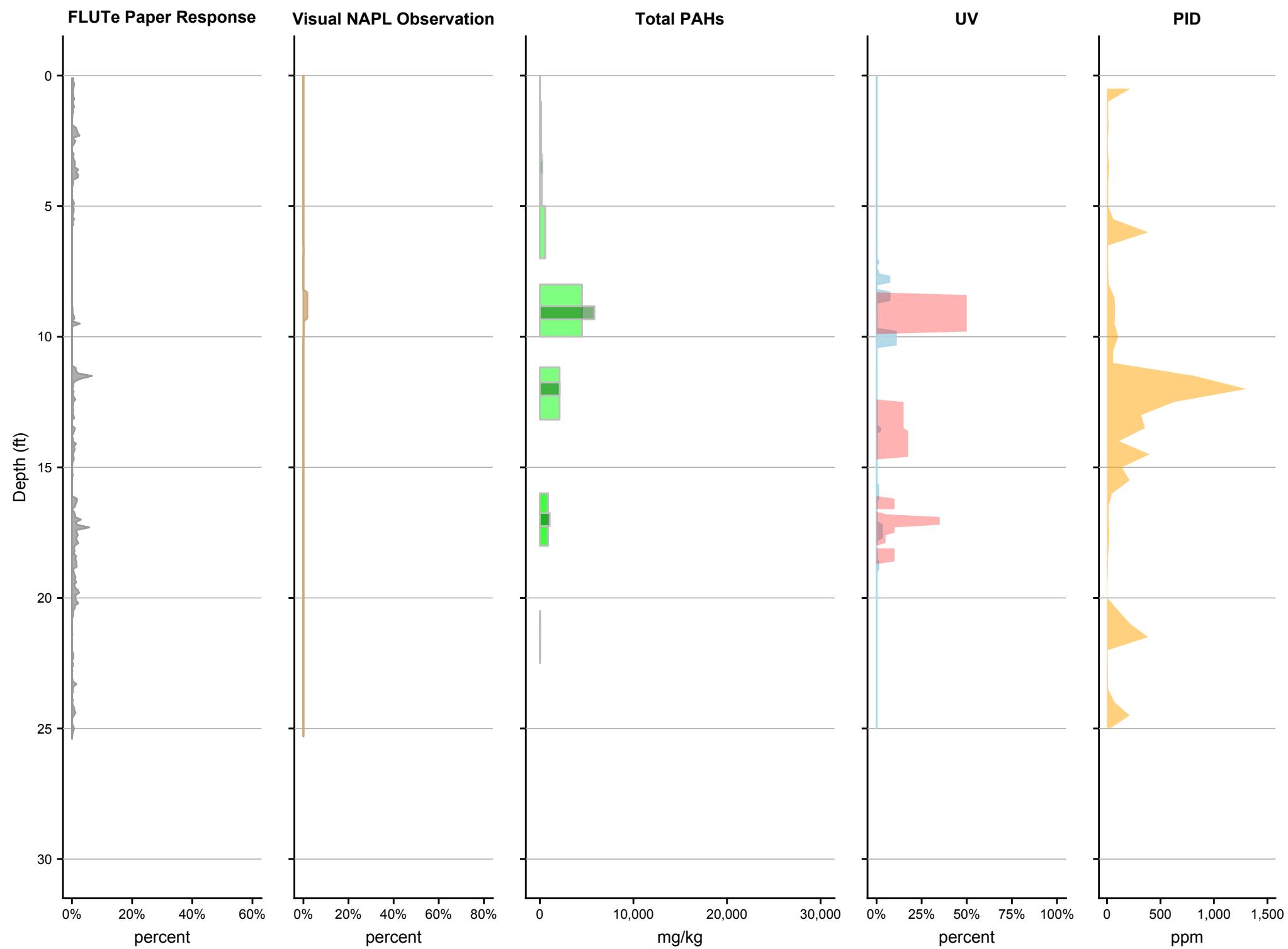
LOCATION: PR1-8 DATE: 2/7/2018 TIME: 13:44 LOGGED BY: D. Burge, H. Cannarella, M. Conlon DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 274" NORTHING/EASTING: 718719.37, 634143.02 DEPTH TO TOP OF SEDIMENT: 3	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-13'1": No response	0'0"-0'1": None 0'1"-3'11": stained without sheen	0'0"-0'7": No response at 0'7": 1 - pinhole diameter response 0'7"-1'6": No response	0'0"-5'11": No response	0' 0"-0' 1": gray brown, very soft, wet silt, trace 0.5" diameter shell fragments 0' 1"-0' 6": dark gray, very soft, wet silt, trace shell fragments <0.5" at 0' 3": 2" x 0.25" wood fragment at 0' 4": 2" diameter angular gravel 0' 6"-2' 7": dark gray, very soft, very moist silt, trace clay	0'6": 0.1 ppm		
1			at 1'6": 1 - 0.25" fibrous material 1'6"-2'4": No response			1'0": 0.2 ppm 1'6": 0.2 ppm		
2			2'4"-3'0": No response at 2'4": 1 - pinhole diameter response		2' 7"-2' 10": dark gray, loose, moist gravelly silt (gravel <2" x 1" diameter, angular to subangular), little sand 2' 7"-2' 10": trace red brick fragments 2' 10"-3' 1": dark gray, soft, moist silt, trace clay, trace subangular rocks <0.5" diameter	2'0": 0.3 ppm 2'6": 181.7 ppm		
3		3'11"-6'0": None	at 3'0": 1 - pinhole diameter response 3'0"-3'1": No response 3'1"-3'8": pinhole diameter responses, 0-2 per inch 3'8"-3'10": pinhole-0.125" diameter responses, 0-2 per inch 3'10"-4'2": up to 60% coverage		3' 1"-3' 8.5": dark gray, soft, moist silt, some fine sand 3' 8.5"-3' 11": dark gray, some brown, very soft, moist silt, some fine sand 3' 11"-5' 0": light olive gray, moist medium-coarse sand with trace cobble and gravel (cobbles <4" diameter)	3'0": 40.4 ppm 3'6": 192.7 ppm		
4			4'2"-4'5": up to 10% coverage 4'5"-4'10": pinhole diameter responses, 5 per inch 4'10"-4'11": 1 - 0.75" x 0.25" response 4'11"-5'4": pinhole diameter responses, 2 per inch		at 4' 1": light gray, soft, silt material inclusion at 4' 9": cobbles <2.5" diameter	4'0": 127.2 ppm 4'6": 26 ppm		
5			5'4"-5'5": 30 - pinhole-0.125" diameter responses 5'5"-5'10": pinhole diameter responses, 0-2 per inch 5'10"-6'1": 30%	at 5'11": 3 - pinhole-0.125" diameter responses 5'11"-6'9": No response	5' 0"-5' 4": light olive gray, moist medium-fine sand 5' 4"-6' 0": light gray to light olive gray, some brown, moist fine-medium sand	5'0": 3.3 ppm 5'6": 53.8 ppm		
6	6'0"-6'3": stained with sheen 6'3"-7'4.5": stained without sheen		6'1"-6'3": 5 - pinhole diameter responses 6'3"-6'8": pinhole diameter responses, 30 per inch 6'8"-6'9": 40% coverage 6'9"-7'6": pinhole diameter responses, 2-5 per inch	at 6'9": 1 - 0.25" diameter response 6'9"-9'1": No response	6' 0"-6' 3": very dark gray, soft, moist silt with some coarse-medium sand, trace gravel and cobble 6' 3"-6' 9.5": olive gray, soft, moist silt with fine sand 6' 9.5"-7' 10": very dark gray, soft, moist silt	6'0": 83.5 ppm 6'6": 50.8 ppm		
7	7'4.5"-7'5.5": stained with light sheen 7'5.5"-8'1": stained without sheen		7'6"-7'7": streak, 10% coverage 7'7"-8'1": pinhole diameter responses, 15 per inch		7' 10"-8' 1": dark olive gray, soft, moist silt	7'0": 88.4 ppm 7'6": 45.4 ppm		

LOCATION: PR1-8 DATE: 2/7/2018 TIME: 13:44 LOGGED BY: D. Burge, H. Cannarella, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 274" NORTHING/EASTING: 718719.37, 634143.02 DEPTH TO TOP OF SEDIMENT: 3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
8		8'1"-8'6": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 8'6"-9'4": stained with sheen	8'1"-8'9": pinhole-0.125" diameter responses, 10 per inch 8'9"-9'8": pinhole-0.125" diameter responses, 15 per inch		8' 1"-10' 0": dark gray, medium soft, moist silt	8'0": 40.5 ppm 8'6": 15000 ppm		
9		9'4"-10'0": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch	9'8"-10'6": pinhole-0.125" diameter responses, 20 per inch	9'1"-9'2": 5% 9'2"-10'0": No response		9'0": 1910 ppm 9'6": 1906 ppm		
10		10'0"-10'7.5": stained with sheen, pinhole-0.50" diameter NAPL droplets, 5 per inch 10'7.5"-11'6": stained with heavy sheen, pinhole-0.75" diameter NAPL droplets, 5-10 per inch	10'6"-11'7": pinhole-0.125" diameter responses, 15 per inch	10'0"-10'6": 5 -10% 10'6"-11'6": 40%	10' 0"-10' 7.5": olive gray, trace yellow-orange streaks, medium soft, moist silt 10' 7.5"-11' 6": dark gray, medium soft, moist silt	10'0": 1889 ppm 10'6": 3111 ppm		
11		11'6"-12'1": stained with sheen	11'7"-12'0": pinhole-0.125" diameter responses, 30 per inch	11'6"-12'4": 10%	11' 6"-12' 1": olive gray, trace yellow-orange streaks, medium soft, moist silt	11'0": 1838 ppm 11'6": 1482 ppm		
12		12'1"-13'1": stained with sheen, pinhole-0.75" diameter NAPL droplets, up to 5-10 per inch	12'0"-13'1": pinhole diameter responses, 10-15 per inch	12'4"-12'6": 50% 12'6"-12'9": 10% 12'9"-13'1": 70%	at 12' 1": 0.5" fibers 12' 1"-13' 1": dark gray, medium soft, moist silt	12'0": 623 ppm 12'6": 437.8 ppm		
13	13'1"-13'2": 20-25 pinhole - 1" diameter responses 13'2"-13'10": pinhole diameter responses, 2-5 per inch 13'10"-14'4": No response	13'1"-13'5": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 13'5"-14'5": stained with sheen, NAPL droplets, 0-2 per inch	13'1"-13'2": No response at 13'2": 3 - pinhole diameter responses 13'2"-13'6": No response 13'6"-14'1": pinhole diameter responses, 2 per inch	13'1"-14'6": 50%	13' 1"-14' 10": gray to dark gray, medium stiff, moist silt, trace clay	13'0": 241.2 ppm 13'6": 54.3 ppm		
14	at 14'4": 2 pinhole diameter responses 14'4"-14'5": No response at 14'5": 2 pinhole diameter responses 14'5"-14'8": No response at 14'8": 1 pinhole diameter response 14'8"-16'11": No response	14'5"-14'10": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 14'10"-16'10": stained with sheen	14'1"-14'4": pinhole diameter responses, 2-5 per inch 14'4"-14'6": No response 14'6"-15'4": pinhole diameter responses, 5-10 per inch	14'6"-15'1": No response	14' 10"-16' 10": gray, stiff, moist silt, little clay	14'0": 15.5 ppm 14'6": 37 ppm		
15			15'4"-15'8": No response 15'8"-17'3": pinhole diameter responses, 2-5 per inch	15'1"-15'6": pinhole-0.75" diameter responses, 2-10 per inch 15'6"-16'5": pinhole-0.25" diameter responses, 2-5 per inch		15'0": 27.3 ppm 15'6": 19.3 ppm		

LOCATION: PR1-8 DATE: 2/7/2018 TIME: 13:44 LOGGED BY: D. Burge, H. Cannarella, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 274" NORTHING/EASTING: 718719.37, 634143.02 DEPTH TO TOP OF SEDIMENT: 3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
16	at 16'11": 4 pinhole diameter responses 16'11"-17'5": No response	16'10"-18'1": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-15 per inch		16'5"-16'8": pinhole-0.5" diameter responses, 5 per inch 16'8"-16'10": No response 16'10"-17'0": 4 - 1" x 0.5" responses	16' 10"-18' 1": gray to dark gray, stiff, moist silt, little clay	16'0": 12.5 ppm 16'6": 400 ppm		
17	17'5"-17'8": No response at 17'5": 4 pinhole diameter responses 17'8"-17'10": No response at 17'8": 1 pinhole diameter response 17'10"-18'1": pinhole diameter responses, 2 per inch		17'3"-18'1": pinhole diameter responses, 5 per inch	17'0"-17'4": 20% 17'4"-18'1": 50%		17'0": 375 ppm 17'6": 249 ppm		
18	18'1"-18'2.5": No response at 18'2.5": 3 pinhole diameter responses at 18'2.5": 1 - 0.625" response 18'2.5"-18'4": No response at 18'4": 1 - 0.0625" response 18'4"-22'3": No response	18'1"-22'4": stained with sheen	18'1"-18'3": pinhole diameter responses, 2-5 per inch 18'3"-18'5": No response 18'5"-19'2": pinhole diameter responses, 5 per inch	18'1"-18'6": 50% 18'6"-18'9": 20% 18'9"-20'7": No response	18' 1"-18' 11": dark gray, medium stiff, moist silt, little clay 18' 11"-22' 4": olive gray, medium stiff to stiff, moist silt, little clay	18'0": 209.9 ppm 18'6": 47 ppm		
19			19'2"-19'3": No response 19'3"-19'4": No response at 19'3": 1 - 0.75" x 1.25" response 19'4"-19'11": pinhole-0.125" diameter responses, 10 per inch at 19'8": 1 - 0.125" x 0.25" response 19'11"-20'1": pinhole diameter responses, 5 per inch			19'0": 63.4 ppm 19'6": 119.9 ppm		
20			20'1"-20'7": pinhole-0.25" diameter responses, 15 per inch 20'7"-21'7": pinhole-0.125" diameter responses, 15 per inch	20'7"-21'3": 10%		20'0": 31.1 ppm 20'6": 32.3 ppm		
21			21'7"-22'4": pinhole diameter responses, 2-5 per inch	21'3"-21'10": 20% 21'10"-22'4": 50%	at 21' 2": trace wood fragments	21'0": 58.5 ppm 21'6": 62.7 ppm		
22	at 22'3": 1 pinhole diameter response 22'3"-22'4": No response 22'4"-22'7.5": 2 pinhole-0.125" diameter responses 22'7.5"-27'4": No response	22'4"-23'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 2-5 per inch	22'4"-23'1": pinhole-0.125" diameter responses, 2-5 per inch	22'4"-22'11": 40 -50% 22'11"-23'2": 10%	22' 4"-23' 2": dark gray, medium soft, silt	22'0": 103.8 ppm 22'6": 263.4 ppm, 540.1 ppm		
23		23'2"-24'4": stained with some sheen	23'1"-23'6": No response 23'6"-23'8.5": 2 - pinhole-0.125" diameter responses 23'8.5"-23'9.5": 30 - pinhole diameter responses 23'9.5"-23'11.5": pinhole diameter responses, 5 per inch 23'11.5"-24'4": 85%	23'2"-24'9": 10 -15%	23' 2"-24' 3": dark olive gray, medium soft, silt, trace shell fragments	23'0": 537.9 ppm 23'6": 552.1 ppm		

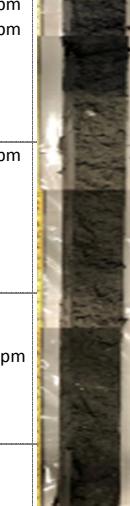
LOCATION: PR1-8 DATE: 2/7/2018 TIME: 13:44 LOGGED BY: D. Burge, H. Cannarella, M. Conlon DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 27'4" NORTHING/EASTING: 718719.37, 634143.02 DEPTH TO TOP OF SEDIMENT: 3	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
24		24'4"-24'8": stained without sheen 24'8"-25'5": stained with sheen	24'4"-26'0": pinhole diameter responses, 0-2 per inch 24'4"-26'0": 5%	24'9"-26'1": No response	24' 3"-24' 8": dark gray, medium soft, silt at 24' 6": shell fragments 24' 8"-25' 5": dark olive gray, medium soft, silt	24'0": 546.1 ppm 24'6": 480.2 ppm		
25		25'5"-25'11": stained with sheen, 2-5 - pinhole diameter NAPL droplets 25'11"-27'4": None			25' 5"-25' 11": dark olive, medium soft, silt 25' 11"-27' 4": olive gray to light olive gray, soft, silty clay 25' 11"-26' 2": some medium shell fragments	25'0": 467.2 ppm 25'6": 500 ppm		
26			26'0"-27'4": No response	at 26'1": 2 -5% 26'1"-27'4": No response	26' 2"-27' 3": trace medium shell fragments	26'0": 392.2 ppm 26'6": 392.2 ppm		
27					27' 3"-27' 4": some medium shell fragments	27'0": 399.9 ppm		

PR1-9

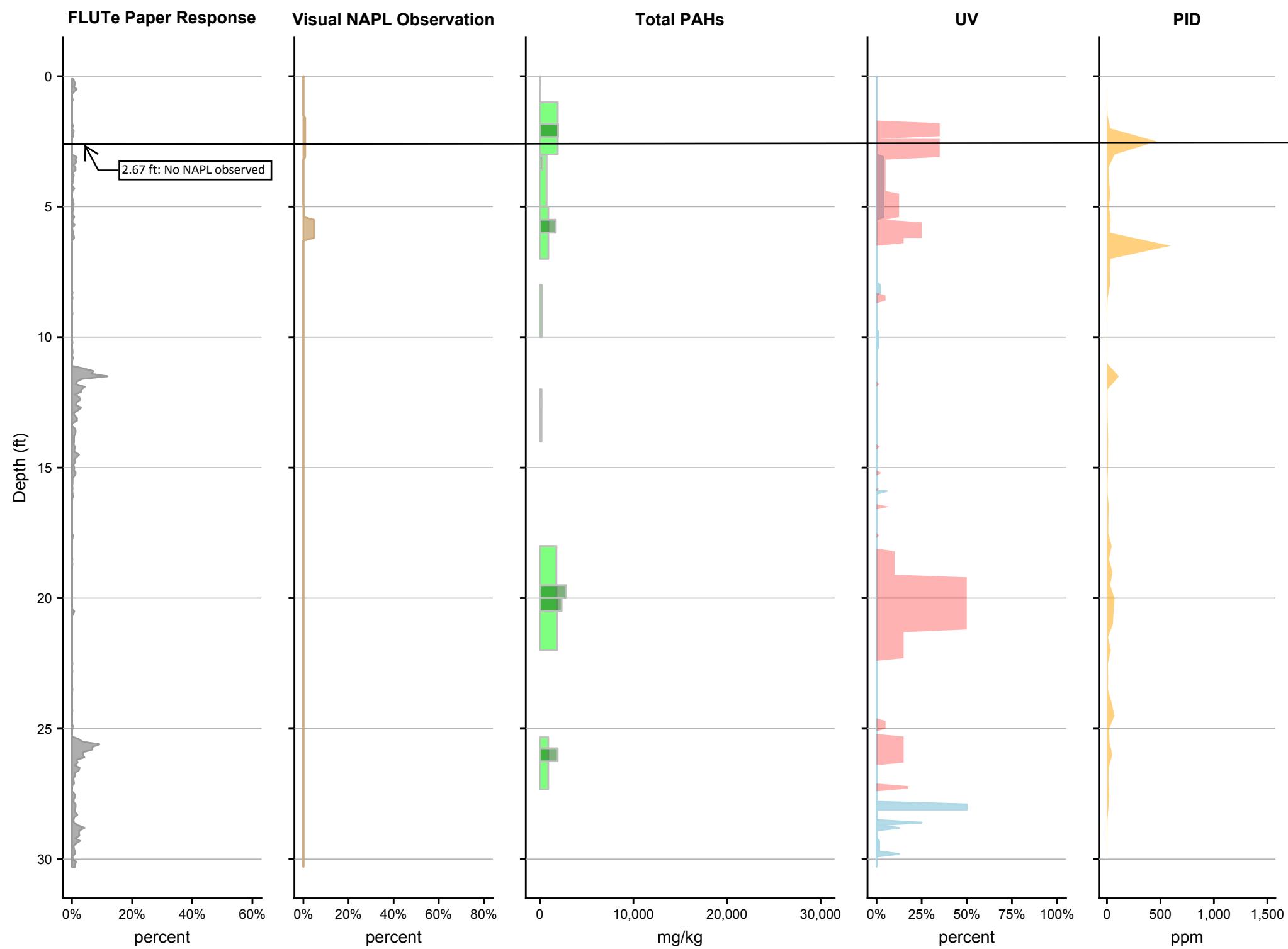


LOCATION: PR1-9 DATE: 2/5/2018 TIME: 12:32:00 PM LOGGED BY: D. Burge, M. Conlon DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 25'4" NORTHING/EASTING: 718692.42, 634202.53 DEPTH TO TOP OF SEDIMENT: 2.9	Comments:	RAMBOLL				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-7'11": No response	0'0"-3'0": stained without sheen	0'0"-3'0": pinhole responses, 0-5 per inch	0'0"-3'0": No response	0' 0"-3' 0.5": dark olive gray, very soft, silt 0' 3.5"-0' 4": shell fragments 0'3.5"-1'8": dark gray, soft, silt	0'6": 217.2 ppm		
1					1' 8"-3' 0": dark gray, soft to firm, silt	1'0": 11.9 ppm 1'6": 11.3 ppm		
2		at 2'8": 1 - pinhole diameter NAPL droplet				2'0": 15.4 ppm 2'6": 7.3 ppm		
3		3'0"-6'2": stained without sheen	3'0"-3'1": No response 3'1"-3'8": pinhole responses, 5-10 per inch 3'8"-3'11": pinhole responses, 15-20 per inch 3'11"-4'10": pinhole responses, 0-5 per inch	3'0"-6'2": No response	3' 0"-6' 2": dark gray, soft, silt	3'0": 10.4 ppm 3'6": 21.1 ppm		
4			4'10"-4'11": No response 4'11"-5'1": pinhole responses, 10-15 per inch		at 4' 1.5": light reddish brown fracturable sand-stone fragment	4'0": 13.2 ppm 4'6": 11.6 ppm		
5			5'1"-6'0": pinhole responses, 10-15 per inch			5'0": 11.5 ppm 5'6": 60.2 ppm		
6		6'2"-6'7": stained without sheen 6'7"-6'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch 6'10"-7'8": stained with sheen	6'0"-6'2": No response 6'2"-6'9": pinhole responses, 2-5 per inch 6'9"-7'1": pinhole responses, 2 per inch	6'2"-8'5": No response	6' 2"-11' 2": gray to dark gray, medium soft, moist silt, little clay	6'0": 386.5 ppm 6'6": 11.4 ppm		
7	at 7'11": 1 pinhole response 7'11"-8'10": No response	7'8"-8'4": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	7'1"-7'3": pinhole-0.13" diameter responses, 5 per inch 7'3"-7'6": pinhole responses, 0-2 per inch 7'6"-7'8": pinhole-0.13" diameter responses, 3-5 per inch 7'8"-7'11": pinhole-0.25" diameter responses, 5-10 per inch 7'11"-8'4": pinhole responses, 2-5			7'0": 10.8 ppm 7'6": 12.5 ppm		
8	8'10"-9'4": pinhole responses, 2-5 per inch	8'4"-9'4": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch	8'4"-8'7": pinhole-0.25" diameter responses, 10 per inch 8'7"-9'10": pinhole responses, 2-5 per inch	8'5"-9'9": 50% coverage		8'0": 16.4 ppm 8'6": 71.7 ppm		
9	9'4"-9'6": pinhole-0.125" diameter responses, 10-15 per inch 9'6"-18'5": No response	9'4"-9'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch 9'11"-10'5": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	9'10"-10'4": pinhole-0.25" diameter responses, 10-15 per inch	9'9"-11'2": No response	at 9' 2": 1/4" wood fragment	9'0": 76.3 ppm 9'6": 71.4 ppm		
10		10'5"-11'2": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	10'4"-11'2": pinhole responses, 5 per inch			10'0": 105.7 ppm 10'6": 60.4 ppm		

LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		PR1-9 2/5/2018 12:32:00 PM D. Burge, M. Conlon OSI	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 25'4" 718692.42, 634202.53 2.9	Comments:	RAMBOLL		
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11		11'2"-16'2": stained with sheen at 11'6": 5 - NAPL droplets	11'2"-12'6": pinhole responses, 15-20 per inch	11'2"-12'6": No response at 12'6": 1 pinhole response	11' 2"-16' 2": dark gray, moderate firm, silt	11'0": 55.9 ppm 11'6": 819.5 ppm		
12			12'6"-13'6.5": pinhole responses, 25-30 per inch	12'6"-13'6.5": 15% coverage	at 12' 5.5": fibrous material	12'0": 1302 ppm 12'6": 627.4 ppm		
13			13'6.5"-13'7.5": 40 pinhole responses 13'6.5"-13'7.5": 10 - pinhole-0.13" diameter responses 13'7.5"-14'7": pinhole responses, 15-20 per inch	13'6.5"-13'7.5": No response 13'7.5"-14'7": 15-20% coverage				
14			14'7"-15'8": pinhole responses, 15-20 per inch	14'7"-16'2": No response		14'0": 112 ppm 14'6": 399 ppm		
15			15'8"-16'2": pinhole-0.13" diameter responses, 5 per inch 15'8"-16'2": pinhole responses, 15-20 per inch					
16		16'2"-17'0": stained with light sheen	16'2"-16'7": pinhole responses, 10-15 per inch 16'7"-17'2": pinhole responses, 20-25 per inch	16'2"-16'7": 10% coverage 16'7"-16'10": No response at 16'10": 1-0.50" response 16'10"-16'11": No response 16'11"-17'2": 30-40% coverage	16' 2"-17' 0": olive gray, medium soft, silt with clay, slight odor, trace shell fragments up to 3/4"	16'0": 47.2 ppm 16'6": 14.7 ppm		
17		17'0"-17'3": stained with sheen 17'3"-18'7": stained with light sheen	17'2"-17'8": pinhole-0.13" diameter responses, 10-15 per inch 17'8"-17'10": pinhole responses, 5-10 per inch 17'10"-18'7": pinhole responses, 10-15 per inch	17'2"-17'6": 10% coverage 17'6"-17'11": 5% coverage 17'11"-18'1": No response at 17'11": 1-0.25" response	17' 0"-18' 7": olive gray, medium soft, silt with clay, trace shell fragments	17'0": 16.2 ppm 17'6": 22.7 ppm		
18	at 18'5": 1- 1/16" by 0.5" response, 1 pinhole response 18'5"-25'4": No response	18'7"-20'4": stained without sheen	18'7"-18'11": pinhole-0.13" diameter responses, 2-5 per inch 18'11"-20'4": pinhole responses, 2-5 per inch	at 18'1": 1-0.50" response at 18'6": 1-0.13" diameter response 18'1"-18'7": 10% coverage 18'7"-20'4": No response	at 18' 3.5": 1/2" shell piece 18' 7"-20' 4": olive gray, medium soft, silt with clay, no shells	18'0": 17 ppm 18'6": 9.5 ppm		
19								
20		20'4"-22'1": stained without sheen	20'4"-20'5": No response 20'5"-21'0": No response at 20'5": 4 pinhole responses	20'4"-25'4": No response	20' 4"-21' 4": olive gray, moist silt, clay	20'0": 4.2 ppm 20'6": 110 ppm		
21			at 21'0": 1 pinhole response 21'0"-21'3": No response 21'3"-21'5": pinhole responses, 2 per inch 21'5"-21'9": No response 21'9"-22'1": pinhole responses, 1 per inch		21' 4"-22' 1": olive gray to dark gray, moist silt, clay at 21' 6": 1/2" diameter white shell fragment	21'0": 219.2 ppm 21'6": 386.2 ppm		

LOCATION: PR1-9 DATE: 2/5/2018 TIME: 12:32:00 PM LOGGED BY: D. Burge, M. Conlon DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 25'4" NORTHING/EASTING: 718692.42, 634202.53 DEPTH TO TOP OF SEDIMENT: 2.9	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22		22'1"-25'4": stained without sheen	22'1"-22'5": No response 22'5"-22'6": 2 pinhole responses 22'6"-24'5": No response		at 22' 0": one 2" by 3" size shell 22' 1"-25' 4": greenish gray to olive gray, medium soft, moist silt, clay, trace shell fragments up to 1/8" diameter at 22' 5": 1" by 1" shell fragment	22'0": 6.9 ppm 22'6": 7.9 ppm		
23					23' 0"-23' 4": pinhead size trace shell fragments 23' 4"-25' 4": trace shell fragments up to 1/8" diameter at 23' 5": 1" thick by 1" wide non-continuous layer of shell fragment	23'0": 9.1 ppm 23'6": 11.2 ppm		
24			24'5"-24'6": 3 pinhole responses 24'6"-24'9": No response at 24'9": 1 pinhole response 24'9"-25'0": No response		at 24' 0": non-continuous layer of shell fragment at 24' 5": 1" thick by 2" wide non-continuous layer of shell fragment	24'0": 72.1 ppm 24'6": 213 ppm		
25			at 25'0": 1 pinhole response			25'0": 27.2 ppm		

PR1-9-1

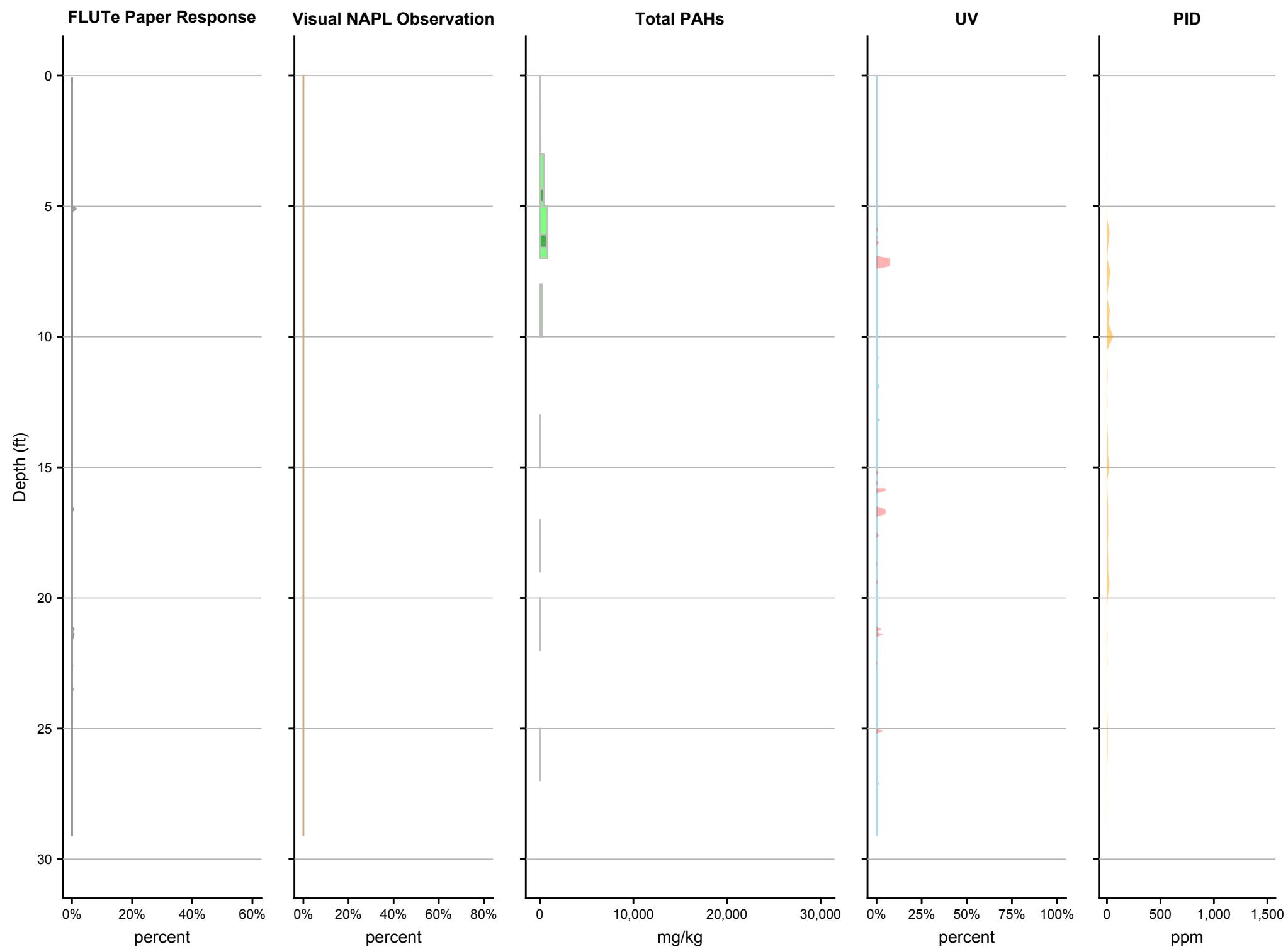


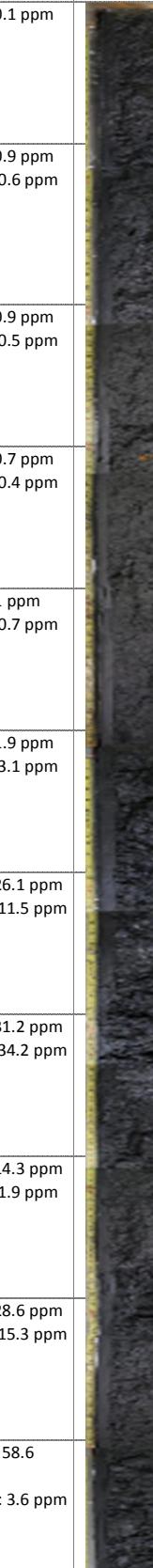
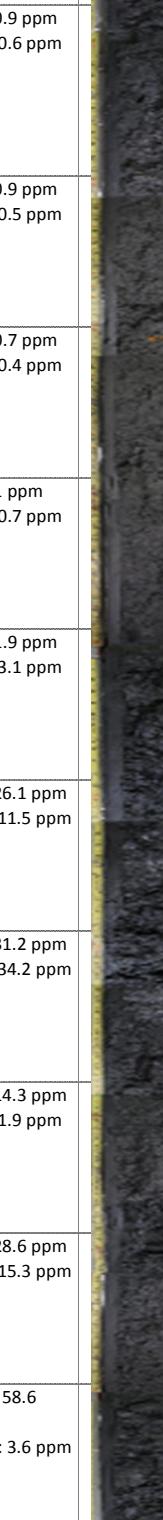
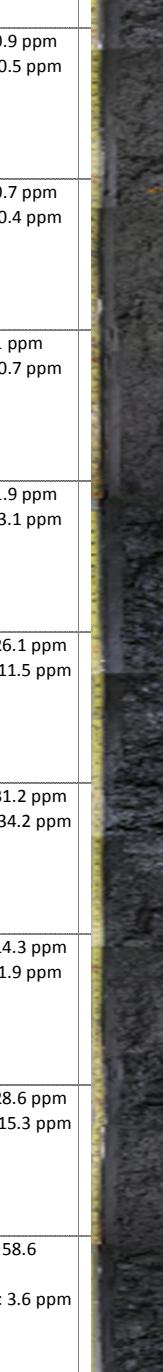
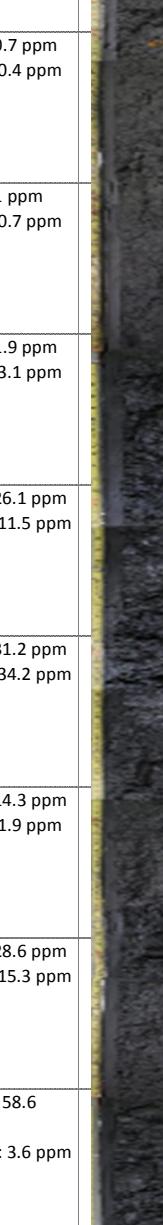
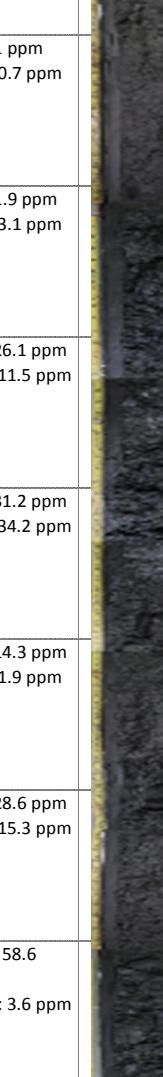
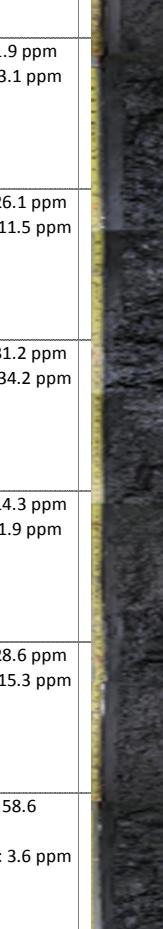
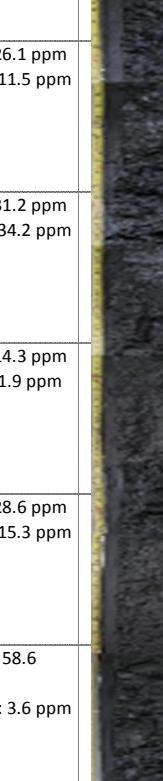
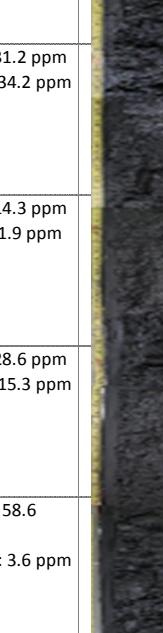
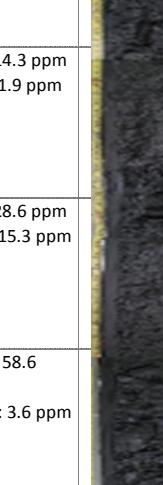
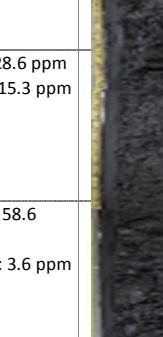
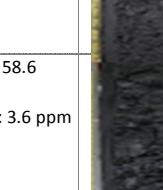
LOCATION: PR1-9-1 DATE: 2/23/2018 TIME: 15:30 LOGGED BY: M. Conlon, D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'4" NORTHING/EASTING: 718679.12, 634264.08 DEPTH TO TOP OF SEDIMENT: 4.1	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-1'10": No response	0'0"-0'10": stained without sheen 0'10"-1'7": stained with light sheen	0'0"-1'2": pinhole diameter responses, 0-2 per inch 0'0"-3'1": 1 - 0.25" fibrous material	0'0"-1'9": No response	0' 0"-0' 2": dark gray, brown, very soft, wet silt, trace clay 0' 0"-0' 2": 3.5" diameter plastic ring (OSI) 0' 2"-0' 10": dark gray, soft, moist silt, trace clay	0'6": 1.3 ppm		
1	at 1'10": 1 pinhole diameter response 1'10"-5'6": No response	1'7"-3'1": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-7 per inch	1'2"-2'1": pinhole diameter responses, 10 per inch	at 1'9": 3 - pinhole-0.25" diameter responses 1'9"-3'1": 30 - 40%	1' 7"-3' 1": very dark gray, soft, moist silt, trace clay at 1' 9": gravel/rock <1.25" x 1" at 1' 10": 4" long fibrous material	1'0": 2.3 ppm 1'6": 5.4 ppm		
2			2'1"-2'5": pinhole diameter responses, 5 per inch 2'5"-3'1": pinhole diameter responses, 5-10 per inch	at 2'5": 1 - 0.25" diameter response		2'0": 31.2 ppm 2'6": 466.5 ppm		
3		3'1"-3'7": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 3'7"-5'0": stained with sheen	3'1"-5'5": pinhole-0.125" diameter responses, 5-20 per inch	3'1"-4'6": 5%	at 3' 0": 2.5" x 0.25" wood fragment 3' 1"-3' 7": dark gray, medium soft, moist silt, trace clay 3' 7"-6' 2": olive gray, medium soft, moist silt, trace clay	3'0": 71.4 ppm 3'6": 15.3 ppm		
4				4'6"-5'5": 10 - 15%		4'0": 19.4 ppm 4'6": 29.5 ppm		
5	5'6"-5'9": 4 pinhole diameter responses 5'9"-6'2": No response	5'0"-5'6": stained with sheen, pinhole-0.25" diameter NAPL droplets, 0-2 per inch 5'6"-6'2": stained with sheen, pinhole-0.5" diameter NAPL droplets, 2-5 per inch	5'5"-5'7": pinhole diameter responses, 2-5 per inch 5'7"-6'2": pinhole diameter responses, 15-20 per inch 5'7"-6'2": 1 - 0.125" trace fibrous material	5'5"-5'7": 5% 5'7"-6'2": 20 - 30%		5'0": 20 ppm 5'6": 34.5 ppm		
6	at 6'2": 1 pinhole diameter response 6'2"-19'8": No response	6'2"-6'4": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch 6'4"-8'10": stained with heavy sheen ("heavy sheen to sheen")	6'2"-6'8": pinhole diameter responses, 5-10 per inch 6'8"-7'0": pinhole diameter responses, 0-2 per inch	at 6'2": 1 - 0.5" x 0.125" response 6'2"-6'5": 10 - 20% 6'5"-8'5": No response	6' 2"-6' 4": dark gray, medium soft, moist 6' 4"-16' 2": dark olive gray	6'0": 29.3 ppm 6'6": 596 ppm		
7			7'0"-7'4": pinhole diameter responses, 5-10 per inch 7'4"-8'0": pinhole diameter responses, 2-5 per inch			7'0": 32.4 ppm 7'6": 27.4 ppm		
8		8'10"-10'10": stained with light sheen	8'0"-8'4": pinhole-0.125" diameter responses, 5-10 per inch 8'4"-9'10": pinhole diameter responses, 2-5 per inch	8'5"-8'7": 5% 8'7"-11'9": No response		8'0": 28.3 ppm 8'6": 6.1 ppm		
9			9'10"-10'5": pinhole-0.125" diameter responses, 2-5 per inch			9'0": 2.3 ppm 9'6": 0.6 ppm		
10		10'10"-11'2": stained without sheen	10'5"-11'2": pinhole diameter responses, 2-5 per inch			10'0": 1.1 ppm 10'6": 2 ppm		
11		11'2"-12'6": stained with sheen	11'2"-11'10": pinhole diameter responses, 0-20 per inch 11'10"-13'3": pinhole diameter responses, 10 per inch	at 11'9": 1 - 0.25" diameter response 11'9"-12'6.5": No response		11'0": 0.5 ppm 11'6": 112.2 ppm, 5.9 ppm		

LOCATION: PR1-9-1 DATE: 2/23/2018 TIME: 15:30 LOGGED BY: M. Conlon, D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'4" NORTHING/EASTING: 718679.12, 634264.08 DEPTH TO TOP OF SEDIMENT: 4.1	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
12		at 12'6": stained with sheen, 1 - pinhole diameter NAPL droplet 12'6"-16'2": stained with light sheen		at 12'6.5": 1 - pinhole diameter response 12'6.5"-14'2.5": No response	at 12' 11": fibrous organic matter, 0.125" flakes	12'0": 5.2 ppm 12'6": 5 ppm		
13			13'3"-16'2": pinhole diameter responses, 20 per inch			13'0": 5.5 ppm 13'6": 9 ppm		
14				14'2.5"-15'3": No response at 14'2.5": 5 - 0.125" diameter responses		14'0": 11.3 ppm 14'6": 10.1 ppm		
15			at 15'11": 1 - 0.50" response	15'3"-15'10": No response at 15'3": 2 - 0.25" diameter responses at 15'10": 1 - 0.25" diameter response 15'10"-16'6": No response		15'0": 10.2 ppm 15'6": 5.7 ppm		
16		16'2"-17'2": stained with sheen	16'2"-17'0": pinhole diameter responses, 2 per inch	at 16'6": 1 - 0.125" x 2" non-continuous layer 16'6"-17'7": No response	16' 2"-21' 2": olive gray to dark olive gray, medium stiff, moist silt, trace clay	16'0": 5.8 ppm 16'6": 17.8 ppm		
17		17'2"-18'4": stained without sheen	17'0"-17'9": pinhole diameter responses, 2-5 per inch 17'9"-18'7": pinhole diameter responses, 2 per inch	at 17'7": 1 - 0.25" diameter response 17'7"-18'2": No response		17'0": 13.7 ppm 17'6": 12.3 ppm		
18		18'4"-24'7": stained with sheen	18'7"-19'3": pinhole diameter responses, 2-5 per inch	18'2"-19'3": 10%		18'0": 44.4 ppm 18'6": 19.5 ppm		
19	19'8"-19'9": 4 pinhole diameter responses 19'8"-19'9": 1 - 0.125" response 19'9"-30'4": No response		19'3"-21'2": pinhole diameter responses, 2 per inch	19'3"-21'2": 50%	at 19' 8": plastic fibrous material <4" long	19'0": 51.3 ppm 19'6": 30.5 ppm		
20						20'0": 70.5 ppm 20'6": 62.8 ppm		
21			21'2"-22'7": pinhole diameter responses, 0-2 per inch	21'2"-22'4": 10 -20%	21' 2"-24' 5": olive gray, medium stiff, moist silt, trace clay at 21' 7": organic fibrous material	21'0": 55.3 ppm 21'6": 10.3 ppm		
22			22'7"-24'4": pinhole diameter responses, 2-5 per inch	22'4"-24'8": No response		22'0": 35.6 ppm 22'6": 9.2 ppm		

LOCATION: PR1-9-1 DATE: 2/23/2018 TIME: 15:30 LOGGED BY: M. Conlon, D. Burge, E. Emery DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 30'4" NORTHING/EASTING: 718679.12, 634264.08 DEPTH TO TOP OF SEDIMENT: 4.1	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
23						23'0": 11.4 ppm 23'6": 10.3 ppm		
24		24'7"-25'2": stained without sheen	24'4"-25'2": pinhole diameter responses, 0-2 per inch	24'8"-25'0": 5%	24' 5"-24' 7": olive gray to light gray, medium stiff, moist silt, trace clay 24' 7"-25' 2": medium stiff, moist silt, trace clay, trace white shell fragments <0.125"	24'0": 43.5 ppm 24'6": 70.5 ppm		
25		25'2"-25'4": None 25'4"-26'4": stained with light sheen	25'2"-25'4": No response 25'4"-26'4": pinhole diameter responses, 30 per inch	25'0"-25'4": No response 25'4"-26'4": 10 -20%	25' 2"-25' 4": 100% shell fragments, <0.25" 25' 4"-26' 4": dark olive gray, clay, silt	25'0": 20.6 ppm 25'6": 23.4 ppm		
26		26'4"-26'9": stained without sheen 26'9"-27'2": None	26'4"-27'5": pinhole diameter responses, 5-10 per inch	26'4"-27'3": No response	26' 4"-26' 8": olive gray, dark olive gray, clay and silt 26' 8"-27' 2": olive gray, silty clay, trace small crushed shell fragments	26'0": 49.8 ppm 26'6": 16.5 ppm		
27		27'2"-27'3": stained with light sheen 27'3"-30'4": None	27'5"-27'11": pinhole diameter responses, 0-5 per inch 27'11"-28'1": 50%	27'3"-27'4": 15-20% 27'4"-30'4": No response	27' 2"-27' 3": dark olive gray, clay and silt, trace small crushed shell fragments 27' 3"-30' 4": olive gray, silty clay, trace small crushed shell fragments	27'0": 15.1 ppm 27'6": 22 ppm		
28			28'1"-29'2": pinhole diameter responses, 0-5 per inch at 28'7": 1 - 0.25" partial layer at 28'10": 1 - 0.125" partial layer		28' 0"-28' 1": crushed shell fragment layer 28' 6.5"-28' 7": crushed shell fragment layer	28'0": 14.3 ppm 28'6": 4.3 ppm		
29			29'2"-29'4": No response 29'4"-29'8": 15 - 0.125" responses 29'8"-30'4": pinhole diameter responses, 0-5 per inch at 29'10": 1 - 0.125" partial layer			29'0": 3.2 ppm 29'6": 2 ppm		
30						30'0": 1.7 ppm		

PR1-9-2

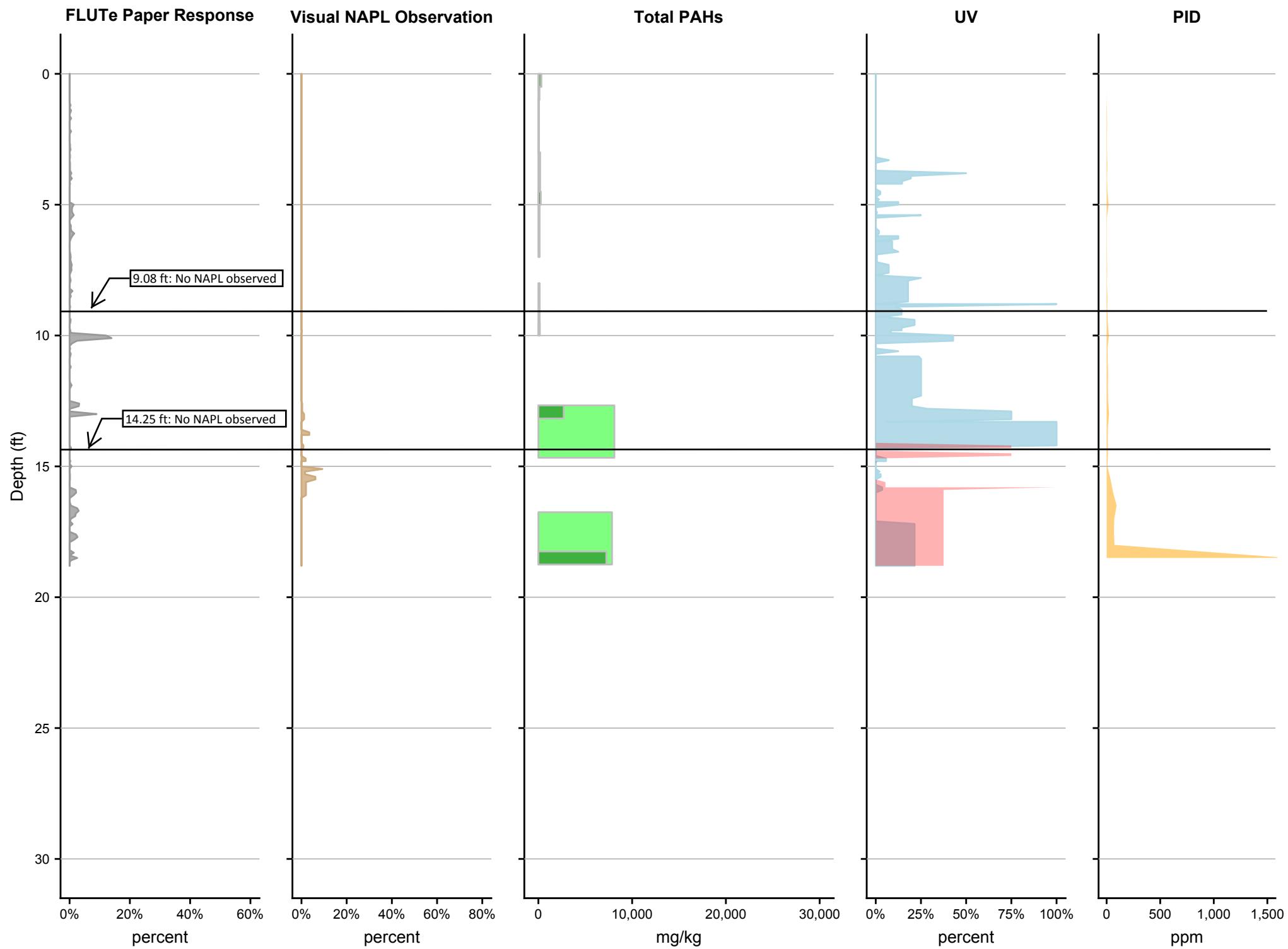


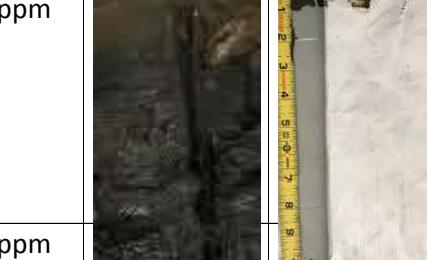
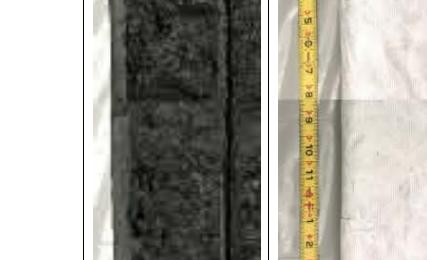
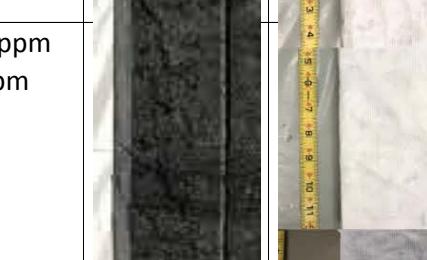
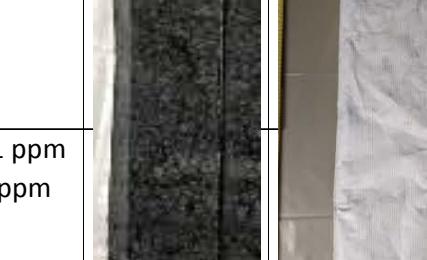
LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		PR1-9-2 3/9/2018 14:23 D. Burge OSI	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 29'1" 718622.04, 634409.36 4.2	Comments:			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-29'1": No response	0'0"-0'1": None 0'1"-5'8": stained without sheen	0'0"-2'3": No response	0'0"-5'11": No response	0' 0"-0' 1": olive gray brown, very soft, wet silt, trace clay 0' 1"-0' 10": olive gray, very soft, wet silt, trace clay 0' 10"-1' 5": dark gray, very soft, wet silt, trace clay	0'6": 0.1 ppm		
1					1' 5"-1' 9": dark gray, very soft, wet silt, trace clay, trace white shell fragments (primarily PH size) at 1' 9": 0.125" diameter white shell fragment 1' 9"-3' 4": olive gray, very soft, wet silt, trace clay, trace white shell fragments (primarily PH size)	1'0": 0.9 ppm 1'6": 0.6 ppm		
2			2'3"-2'11": No response at 2'3": 1 - pinhole diameter response 2'11"-3'3": No response at 2'11": 1 - pinhole diameter response					
3			3'3"-3'9": pinhole diameter responses, 2 per inch 3'9"-4'2": pinhole diameter responses, 0-2 per inch		3' 4"-5' 0": olive gray, soft, wet silt, trace clay, trace white shell fragments (primarily PH size)	3'0": 0.7 ppm 3'6": 0.4 ppm		
4			4'2"-4'10": pinhole diameter responses, 5 per inch 4'10"-5'0": pinhole diameter responses, 0-2 per inch		at 4' 2": 0.25" diameter pebble	4'0": 1 ppm 4'6": 0.7 ppm		
5	5'8"-5'9": stained with sheen 5'9"-6'1": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	5'0"-5'8": No response 5'8"-5'10": pinhole diameter responses, 2-5 per inch 5'10"-6'3": pinhole diameter responses, 5-10 per inch		at 5'11": 2 - 0.125" diameter responses 5'11"-6'3": No response at 5'11": 1 - 0.125" x 0.25" response	5' 0"-7' 10": dark gray, medium soft, very moist silt, trace clay	5'0": 1.9 ppm 5'6": 3.1 ppm		
6	6'1"-6'8": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch 6'8"-7'4": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	6'3"-6'11": pinhole diameter responses, 0-2 per inch 6'11"-7'8": pinhole diameter responses, 2-5 per inch		6'3"-6'5": No response at 6'3": 1 - 0.125" diameter response at 6'5": 1 - 0.25" diameter response 6'5"-7'0": No response		6'0": 26.1 ppm 6'6": 11.5 ppm		
7	7'4"-7'10": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch 7'10"-20'0": stained with sheen	7'8"-8'9": pinhole diameter responses, 0-2 per inch		7'0"-7'4": 5 -10% 7'4"-15'2": No response	7' 10"-24' 2": olive gray, medium stiff, moist	7'0": 31.2 ppm 7'6": 34.2 ppm		
8			8'9"-9'1": No response					
9			9'1"-9'9": pinhole diameter responses, 2-5 per inch 9'9"-10'0": pinhole diameter responses, 0-2 per inch					
10			10'0"-10'3": pinhole diameter responses, 2-5 per inch 10'3"-11'6": pinhole diameter responses, 0-2 per inch at 10'9": 2 - 0.125" responses					

LOCATION: PR1-9-2 DATE: 3/9/2018 TIME: 14:23 LOGGED BY: D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'1" NORTHING/EASTING: 718622.04, 634409.36 DEPTH TO TOP OF SEDIMENT: 4.2	Comments:	RAMBOLL				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11			11'6"-12'6": pinhole diameter responses, 5 per inch at 11'11": 3 - 0.125" responses			11'0": 3.4 ppm 11'6": 6.1 ppm		
12			12'6"-12'11": pinhole diameter responses, 10-15 per inch at 12'6": 1 - 0.125" response 12'11"-13'10": pinhole diameter responses, 0-2 per inch			12'0": 2.3 ppm 12'6": 5.3 ppm		
13			at 13'2": 1 - 0.25" response 13'10"-14'7": pinhole diameter responses, 2-5 per inch			13'0": 2.7 ppm 13'6": 4.8 ppm		
14			14'7"-14'9": pinhole diameter responses, 10-15 per inch 14'9"-15'0": pinhole diameter responses, 2-5 per inch			14'0": 10.5 ppm 14'6": 10.2 ppm		
15			15'0"-15'11": pinhole diameter responses, 5-10 per inch at 15'7": 1 - 0.125" response 15'11"-17'7": pinhole diameter responses, 2-5 per inch	at 15'2": 3 - 0.125" diameter responses 15'2"-15'7": No response at 15'7": 2 - 0.125" diameter responses 15'7"-15'9": No response 15'9"-15'11": 5% 15'11"-16'7": No response		15'0": 23.1 ppm 15'6": 3.6 ppm		
16		at 16'9": stained with sheen, 3 - pinhole diameter NAPL droplets		16'7"-16'9": 5% 16'9"-17'7": No response		16'0": 5.3 ppm 16'6": 11.3 ppm		
17		at 17'8": stained with sheen, 1 - pinhole diameter NAPL droplet at 17'11": stained with sheen, 2 - pinhole diameter NAPL droplets	17'7"-18'7": pinhole diameter responses, 5-10 per inch	at 17'7": 1 - 0.25" diameter response 17'7"-18'8": No response		17'0": 10.9 ppm 17'6": 12.6 ppm		
18			18'7"-20'0": pinhole diameter responses, 2-5 per inch	at 18'8": 1 - 0.125" diameter response 18'8"-19'5": No response		18'0": 7.5 ppm 18'6": 11.7 ppm		
19				19'5"-21'3": No response at 19'5": 2 - 0.125" diameter responses		19'0": 12.7 ppm 19'6": 24.6 ppm		
20		20'0"-24'8": stained with light sheen	20'0"-20'8": No response at 20'8": 1 - 0.125" response 20'8"-20'9": No response at 20'9": pinhole diameter responses, 0-2 per inch 20'9"-21'9": pinhole diameter responses, 2-5 per inch			20'0": 6.5 ppm 20'6": 1.5 ppm		
21			21'9"-22'1": pinhole diameter responses, 0-2 per inch	at 21'3": 2 - 0.25" diameter responses at 21'3": 1 - 0.125" diameter response 21'3"-21'5": No response at 21'5": 1 - 0.25" diameter response at 21'5": 1 - 0.25" x 0.5" response 21'5"-22'6": No response	at 21' 7": 0.125" thick layer: organic debris, twigs, leaves, and trace fine sand	21'0": 2.2 ppm 21'6": 5.5 ppm		

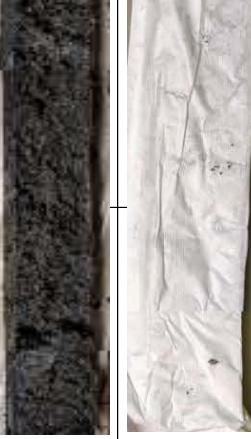
LOCATION: PR1-9-2 DATE: 3/9/2018 TIME: 14:23 LOGGED BY: D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'1" NORTHING/EASTING: 718622.04, 634409.36 DEPTH TO TOP OF SEDIMENT: 4.2	Comments:					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
22			at 22'0": 1 - 0.125" response 22'1"-22'7": pinhole diameter responses, 5-10 per inch 22'7"-23'7": pinhole diameter responses, 2-5 per inch	22'6"-25'1": No response at 22'6": 1 - 0.125" diameter response		22'0": 2 ppm 22'6": 5.1 ppm		
23			23'7"-24'2": pinhole diameter responses, 5-10 per inch		at 23' 2": 0.125" thick layer of crushed red brick fragments <0.125" diameter at 23' 9": 0.125" thick layer of crushed red brick fragments and white shell fragments, fine to medium sand size	23'0": 1.4 ppm 23'6": 1.7 ppm		
24		24'8"-29'1": stained without sheen	24'2"-24'9": pinhole diameter responses, 2-5 per inch at 24'9": 1 - 0.125" response 24'9"-25'7": pinhole diameter responses, 0-2 per inch		24' 2"-29' 1": olive gray, medium stiff to stiff, moist silt, trace clay at 24' 7": 0.125" diameter red brick fragment	24'0": 1.7 ppm 24'6": 4.6 ppm		
25			25'7"-26'2": pinhole diameter responses, 2-5 per inch	at 25'1": 1 - 0.25" x 0.5" response 25'1"-29'1": No response at 25'1": 1 - 0.125" diameter response		25'0": 7.5 ppm 25'6": 6.9 ppm		
26			26'2"-29'1": pinhole diameter responses, 0-2 per inch			26'0": 6.4 ppm 26'6": 2.6 ppm		
27			at 27'1": 1 - 0.125" x 0.25" response			27'0": 1.1 ppm 27'6": 1.4 ppm		
28						28'0": 2.2 ppm 28'6": 0.8 ppm		
29						29'0": 0.7 ppm		

PR2-8

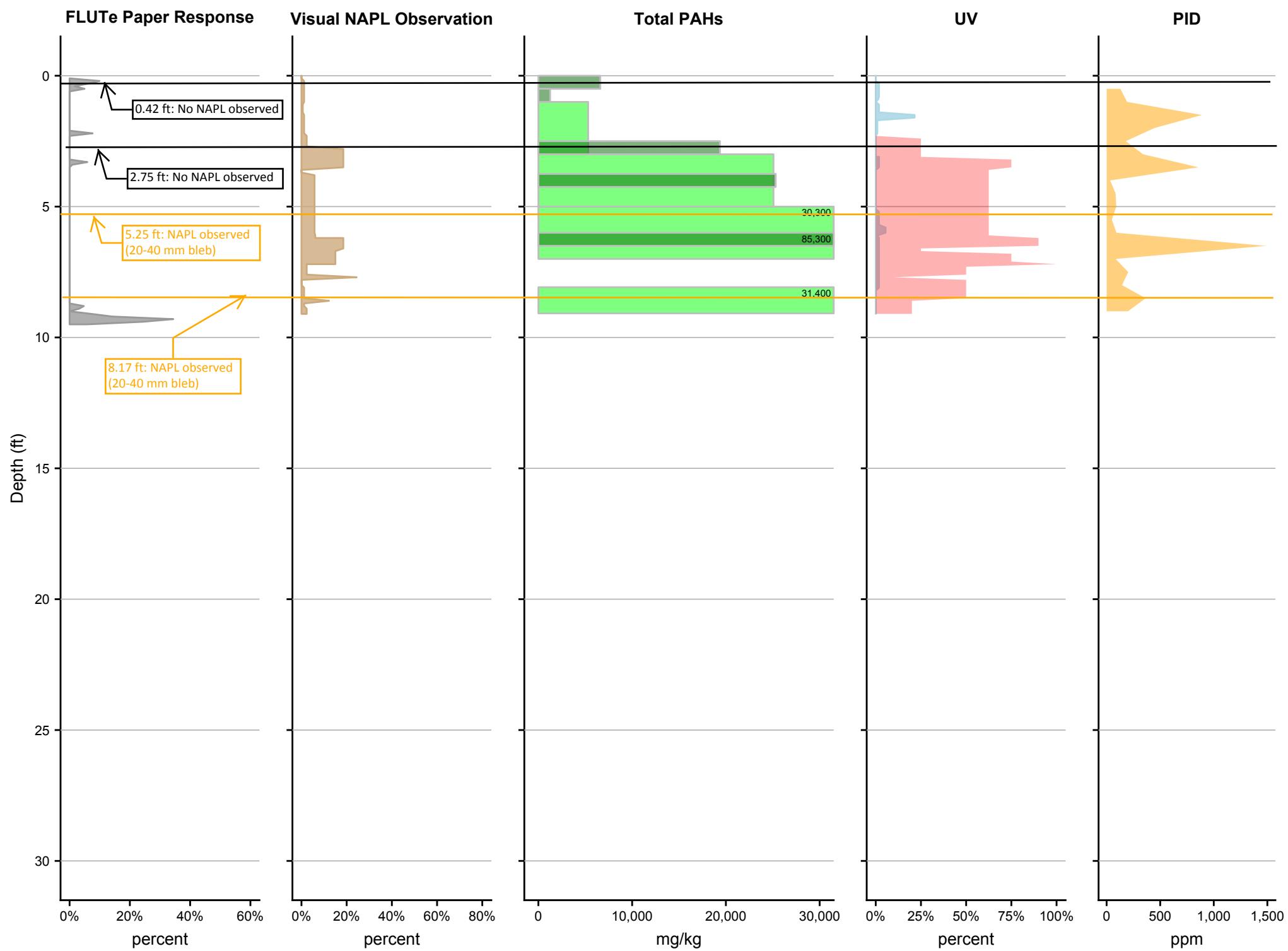


LOCATION: PR2-8 DATE: 1/23/2018 TIME: 13:50 LOGGED BY: D. Burge DRILLING COMPANY: Alpine			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 189.5" NORTHING/EASTING: 718305.47, 633662.72 DEPTH TO TOP OF SEDIMENT:	Comments:	RAMBOLL			
Depth	FLUTE Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTE Paper
0	0'0"-12'9": No response	0'0"-0'2.5": stained without sheen 0'2.5"-2'9": stained without sheen	0'0"-2'2": No response	0'0"-14'2": No response	0'0"-0' 2.5": gray brown, very soft, wet silt 0' 2.5"-0' 9": dark gray, soft to very soft, wet silt at 0' 5": 1/4" shell 0' 9"-1' 4": dark gray, soft, wet silt at 0' 11": trace shell fragments	0'6": 0.2 ppm		
1					1' 4"-2' 0": dark gray brown, soft, wet silt	1'0": 0.7 ppm 1'6": 4 ppm		
2		2'9"-2'9.5": stained with sheen 2'9.5"-3'1.5": stained without sheen	at 2'2": 1 pinhole response 2'2"-2'4.5": No response 2'4.5"-2'8": No response at 2'4.5": 1 pinhole response at 2'8": 1 pinhole response 2'8"-3'1": No response		2' 0"-2' 3": dark gray brown, medium soft, wet silt 2' 3"-5' 0": dark gray, medium soft, wet silt	2'0": 4.8 ppm 2'6": 2.9 ppm		
3		3'1.5"-3'5": stained with sheen 3'5"-3'8": None 3'8"-3'9.5": stained with sheen 3'9.5"-4'0": more predominant stain with sheen	at 3'1": 1 pinhole response 3'1"-3'2.5": No response at 3'2.5": 1 - 0.125" diameter response 3'2.5"-3'4": No response at 3'4": 1 - 0.25" x 1" response 3'4"-3'5": No response at 3'5": 1 pinhole response 3'5"-3'7": No response at 3'7": trace pinhole diameter responses 3'7"-3'9": No response at 3'9": 0.25" thick bands 3'9"-3'10": 1 - 1.5" x 0.25" response 3'10"-3'10.5": No response 3'10.5"-4'0": 1 - 0.5" x2" response, 1 - 0.25" x 0.5" response 4'0"-4'1.5": No response					
4		4'0"-4'2": stained with sheen 4'2"-4'3": more predominant stained with sheen 4'3"-4'4.5": None 4'4.5"-4'7": more predominant stained with sheen 4'7"-4'8": None 4'8"-4'9": more predominant stain with sheen 4'9"-4'10": None 4'10"-5'0": more predominant stain with sheen	4'1.5"-4'2": 1 - 0.5" x 0.5" response 4'2"-4'4": 20 pinhole responses 4'4"-4'6": No response 4'6"-4'7": 7 - 0.125" diameter responses 4'7"-4'8.5": 15 pinhole responses 4'8.5"-4'9": No response at 4'9": 6 - pinhole responses, 1 - 0.25" x 0.125" response 4'10"-4'11": No response at 4'11": 1 - 0.125" thick layer					
5		5'0"-5'3.5": stained with sheen 5'3.5"-6'2.5": stained without sheen	5'0"-5'0.5": No response at 5'0.5": 1 - 0.125"-thick layer and 1-0.125" dimater response at 5'2.5": 1 pinhole response at 5'3.5": 2 - 0.125" diameter responses 5'4.5"-5'5.5": 10 pinhole responses and 1 - 0.125"-thick layer 5'5.5"-6'0": No response		5' 0"-5' 3.5": dark gray, black, 5' 3.5"-9' 7": dark gray, medium soft, silt	5'0": 18.1 ppm 5'6": 3.2 ppm		
6		6'2.5"-6'5": stained with sheen 6'5"-6'5.5": None 6'5.5"-7'2": stained with sheen	6'0"-6'1": 5 - 0.125" diameter responses 6'1"-6'3": pinhole responses, 20 per inch 6'3"-6'4": 1 - 0.125"- thick layer 6'4"-6'5": No response 6'5"-6'9": 50 - 0.03125-0.25" diameter responses 6'9"-7'4": 25 - pinhole-0.125" diameter responses at 6'9": 1 - 0.125"- thick layer					
7		7'2"-7'4": stained without sheen 7'4"-7'8.5": stained with sheen 7'8.5"-7'10": stained without sheen 7'10"-7'10.5": stained with sheen 7'10.5"-8'7.5": None	7'4"-7'5.5": 15 - pinhole-0.25" diameter responses 7'5.5"-7'7": 15 - pinhole-0.25" diameter responses 7'7"-7'9": No response 7'9"-7'9.5": 1 - 0.125" thick layer 7'9.5"-7'10": No response 7'10"-8'8": pinhole-0.25" responses, 10-25 per inch					

LOCATION: PR2-8 DATE: 1/23/2018 TIME: 13:50 LOGGED BY: D. Burge DRILLING COMPANY: Alpine			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 189.5" NORTHING/EASTING: 718305.47, 633662.72 DEPTH TO TOP OF SEDIMENT:	Comments:	RAMBOLL			
Depth	FLUTE Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTE Paper
8		8'7.5"-8'9": stained with sheen 8'9.5"-8'11": stained with less sheen 8'11"-9'5": stained with sheen	8'8"-8'9": No response 8'9"-8'9.5": 30 - pinhole-0.5" diameter responses 8'9.5"-9'0": 0.125" diameter responses, 30 per inch			8'0": 2.9 ppm 8'6": 7.8 ppm		
9		9'5"-9'6": stained with sheen 9'6"-9'7": stained with more predominant sheen 9'7"-10'0": stained with sheen at 9'10": stained with sheen, 1 - 0.25" diameter sheen droplet	9'0"-9'2.5": pinhole-0.5" responses, 4-5 per inch 9'2.5"-9'3.5": No response 9'3.5"-9'5": pinhole-0.125" responses 9'5"-9'7": pinhole-0.25" responses, 30 per inch 9'7"-9'8": No response 9'8"-9'10": pinhole-0.25" responses, 20 per inch 9'10"-9'11.5": 1 - 0.125"-thick non-continuous layer 9'11.5"-10": No response		9' 7"-10' 0": fibrous material	9'0": 6.6 ppm 9'6": 11.2 ppm		
10	at 10'2": sediment stain from glove	10'0"-10'7.5": stained without sheen 10'7.5"-10'11": stained with sheen 10'11"-11'9": stained without sheen	10'0"-10'2": 0.25" diameter responses, 30 per inch 10'2"-10'3": No response at 10'3": 4 - 0.25" diameter responses 10'3"-10'4": No response 10'4"-10'7": pinhole responses, 15 per inch at 10'7": 1 - 0.125" layer 10'7"-10'9": No response at 10'9": 1 - 0.125" layer 10'9"-10'10.5": 25-0.25" diameter responses 10'10.5"-10'11": No response 10'11"-12'4": pinhole-0.25" diameter responses, 35 per inch		10' 0"-10' 7.5": dark gray brown, medium soft, silt at 10' 5": black, 1/8" layer 10' 7.5"-11' 9": very dark gray, medium soft, silt	10'0": 20.3 ppm 10'6": 9 ppm		
11		11'9"-12'7": stained with trace sheen			11' 9"-12' 7": dark gray brown, medium soft, silt 11' 10"-12' 7":	11'0": 10.5 ppm 11'6": 14.1 ppm		
12	at 12'9": 2-0.25" diameter responses 12'9"-13'0": No response	12'7"-12'10.5": stained with sheen, 10 - pinhole-0.25" diameter NAPL droplets 12'10.5"-13'0": stained without sheen	12'4"-12'9": 0.5"-thick discontinuous layers 12'9"-12'11": 40 - 0.25" diameter responses 12'11"-13'2": 0.5" x 1.5" discontinuous responses		at 12' 0": fibers 12' 7"-12' 10.5": dark gray brown to dark olive gray, medium soft, silt 12' 10.5"-14' 4": dark olive gray, medium soft, silt	12'0": 11.9 ppm 12'6": 14.7 ppm		
13	at 13'0": 0.25" diameter droplet, non-continuous layer 13'0"-16'0": No response	13'0"-13'3": stained without sheen, 15 - 0.25" diameter NAPL droplets 13'3"-13'8": stained without sheen 13'8"-13'9": stained without sheen, 15 - 0.25" diameter NAPL droplets 13'9"-14'2": stained without sheen at 14'0": 1 - 0.25" diameter NAPL droplet	13'2"-13'3": No response 13'3"-13'4": 1 - 0.5" diameter continuous layer 13'4"-14'2": pinhole-0.5" responses, 40 per inch		at 13' 2": 1.5" long white plastic film	13'0": 22.4 ppm 13'6": 12.6 ppm		
14		14'2"-14'4": stained without sheen, 15 - pinhole-0.25" diameter NAPL droplets 14'4"-14'8": stained with sheen at 14'8": stained with sheen, 1 - 0.5" diameter NAPL droplet 14'8"-15'0": stained with sheen	14'2"-14'8": No response at 14'8": 1 - 0.5" diameter response 14'8"-14'11": No response at 14'11": 6 pinhole responses 14'11"-15'0": No response	14'2"-14'4": 1 response 14'4"-14'6": No response 14'6"-14'7": 1 response 14'7"-14'9.5": No response at 14'9.5": 1 - 0.125" x 0.25" response 14'9.5"-15'7": No response	14' 4"-14' 8": dark gray, medium soft, silt 14' 8"-15' 0": dark olive gray, medium soft, silt	14'0": 10.5 ppm 14'6": 13 ppm		
15		15'0"-15'1": stained with sheen 15'1"-15'1.5": stained without sheen, 5 - pinhole-0.5" diameter NAPL droplets 15'1.5"-15'4.5": stained with sheen, 20 - 0.25" diameter NAPL droplets 15'4.5"-15'6": stained with sheen, 5 - 0.5" diameter pooling/oozing NAPL droplets 15'6"-16'1": stained with sheen, 15 - pinhole-0.5" diameter NAPL droplets	15'0"-15'2": No response 15'2"-15'3": 3 - pinhole-0.25" diameter responses 15'3"-15'4": No response 15'4"-15'5": pinhole-0.125" responses, 15 per inch 15'5"-15'9.5": No response 15'9.5"-15'10.5": 10 - 0.125" diameter responses 15'10.5"-17'3": No response	15' 7"-15' 9": 15 - pinhole-0.25" diameter responses 15' 9"-15' 9.5": 1 - layer 15' 9.5"-15' 10.5": No response 15' 10.5"-18' 9.5": discontinuous response	15' 0"-15' 4.5": very dark gray, medium soft, silt 15' 4.5"-15' 6": dark gray brown, medium soft, silt 15' 6"-16' 2": very dark gray, medium soft, silt	15'0": 7.8 ppm 15'6": 37 ppm		
16	16'0"-16'2": 30 - 0.125" diameter responses 16'2"-16'8": No response 16'8"-16'10": 4-0.125" diameter responses 16'10"-17'3": No response	16'1"-16'2": pooling/oozing, NAPL droplets present, discontinuous layer 16'2"-16'7": stained with sheen 16'7"-17'2": stained without sheen			16' 2"-17' 2": dark olive gray, medium soft, silt 16' 10"-16' 11": broken glass or liner	16'0": 60.8 ppm 16'6": 93.6 ppm		

LOCATION: PR2-8 DATE: 1/23/2018 TIME: 13:50 LOGGED BY: D. Burge DRILLING COMPANY: Alpine	SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 18'9.5" NORTHING/EASTING: 718305.47, 633662.72 DEPTH TO TOP OF SEDIMENT:	Comments:						
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
17	17'3"-17'4": 10-0.25" responses 17'4"-17'8.5": No response 17'8.5"-17'10": 12-0.25" responses 17'10"-18'0": No response	17'2"-18'9.5": stained with sheen	17'3"-18'9.5": pinhole-0.25" responses, 30 per inch		17' 2"-18' 9.5": dark gray, medium soft, silt	17'0": 71.3 ppm 17'6": 68.8 ppm		
18	at 18'0": 10 pinhole responses 18'0"-18'4": No response 18'4"-18'5": 10-0.25" responses 18'5"-18'8.5": No response at 18'8.5": 3-0.125" responses 18'8.5"-18'9.5": No response					18'0": 73.3 ppm 18'6": 1698 ppm		

TTA-04-D

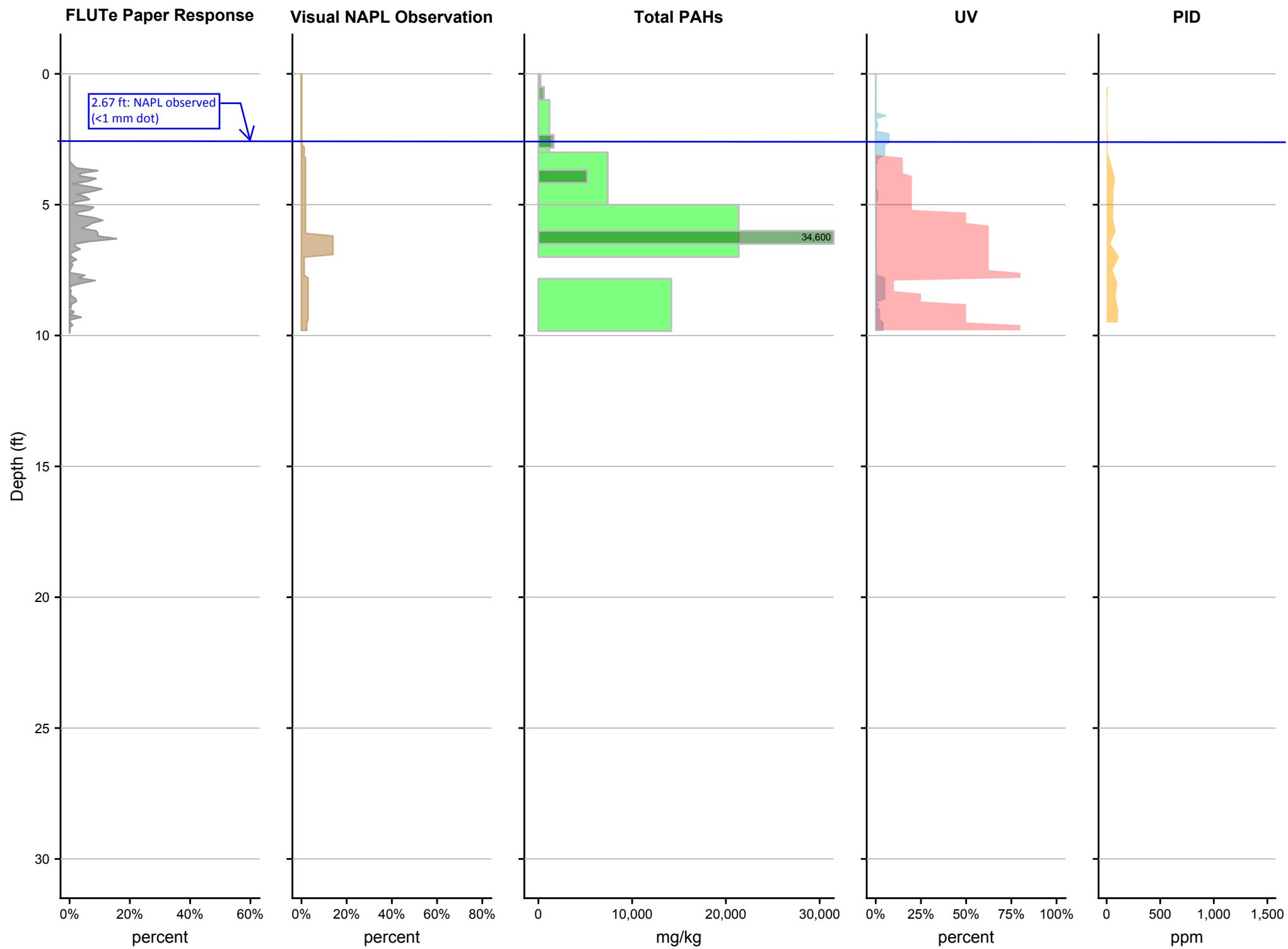


FLUTe Paper Reactions		Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
Depth	FLUTe Paper Reactions							
0	0'0"-0'2.5": No response 0'2.5"-0'6": pinhole-0.125" diameter responses, 5 per inch 0'6"-2'2": No response	0'0"-0'3": None 0'3"-1'0": stained with sheen, oozing pinhole-0.25" diameter NAPL droplets, 5-10 per inch	0'0"-0'4": No response 0'4"-0'9": pinhole-0.125" diameter responses, 5-10 per inch 0'9"-0'9.5": pinhole-0.125" diameter responses, 10 per inch 0'9.5"-0'11": No response at 0'11": 1 - 0.25" response 0'11"-1'1": No response	0'0"-2'5": No response	0'0"-0'3": gray brown, very soft, wet silt 0'3"-1'0": very dark gray to black, very soft, wet silt	0'6": 129 ppm		
1		1'0"-1'6": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5 per inch 1'6"-2'4": stained with sheen, oozing pinhole-0.25" diameter NAPL droplets, 10 per inch	1'1"-1'6": pinhole-0.125" diameter responses, 5-10 per inch 1'6"-1'7": pinhole-0.25" diameter responses, 30 per inch 1'7"-2'2": pinhole-0.125" diameter responses, 0-5 per inch		1'0"-1'6": gray to dark gray, soft, wet silt 1'6"-2'4": dark gray, soft, wet silt at 1'11": fibrous material	1'0": 191 ppm 1'6": 890 ppm		
2	at 2'2": 1 - 0.25" x 0.5" response 2'2"-2'4": No response 2'4"-2'10": pinhole diameter responses, 5-10 per inch 2'10"-3'0": No response	2'4"-2'9": stained with sheen, oozing pinhole-0.25" diameter NAPL droplets, 15-20 per inch 2'9"-3'0": stained with sheen, oozing pinhole-0.5" diameter NAPL droplets, 10-20 per inch	2'2"-2'7": No response 2'7"-2'10": pinhole diameter responses, 5-15 per inch 2'10"-3'1": No response	2'5"-3'3": 25%	2'3"-5'10": dark gray, medium soft, moist silt at 2'6": 3" x 2" clear glass fragment	2'0": 445 ppm 2'6": 179 ppm		
3	3'0"-3'3": pinhole diameter responses, 10 per inch 3'3"-3'6": pinhole-0.375" diameter responses, 15-20 per inch 3'6"-3'9": pinhole-0.5" diameter responses, 20% coverage 3'9"-4'0": pinhole-0.5" diameter responses, 10% coverage	3'0"-3'6": stained with sheen, pooling pinhole-0.5" diameter NAPL droplets, 10-20 per inch 3'6"-4'1": stained with sheen 4'1"-6'4": stained with sheen, oozing 0.25" NAPL droplets, 20-30 per inch	3'1"-3'6": pinhole-0.125" diameter responses, 10 per inch 3'6"-3'9.5": No response 3'9.5"-5'2": pinhole diameter responses, 3-10 per inch	3'3"-3'6": 75% 3'6"-6'3": 50-75%				
4	4'0"-4'6": pinhole-0.25" diameter responses, 5-10 per inch 4'6"-4'9.5": No response 4'9.5"-4'11.5": 20 - 0.25" responses 4'11.5"-5'10": pinhole diameter responses, 5-10 per inch					4'0": 32.9 ppm 4'6": 84 ppm		
5	5'10"-5'11": 4 - 0.25" responses 5'11"-6'1": No response		5'2"-5'9": pinhole-0.125" diameter responses, 0-10 per inch 5'9"-6'0": pinhole-0.125" diameter responses, 30 per inch		5'10"-6'4": medium dark gray, medium soft, moist silt	5'0": 90.4 ppm 5'6": 48.7 ppm		Photos unavailable 5'6"-8'1.5"

LOCATION: TTA-04-D DATE: 1/25/2018 TIME: 14:35 LOGGED BY: D. Burge DRILLING COMPANY: ASI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 9'11.5" NORTHING/EASTING: 718609.49, 633716.23 DEPTH TO TOP OF SEDIMENT:	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
6	6'1"-6'6.5": 80% coverage 6'6.5"-6'10": 3 - 0.5" responses, 1 - 0.25" response 6'10"-7'3": 75% coverage	6'4"-6'6": stained with sheen, pooling non-continuous NAPL 6'6"-6'10": stained with sheen, oozing pinhole-0.5" diameter NAPL droplets, 20 per inch 6'10"-7'5": stained with sheen, 10-20% coverage NAPL	6'0"-6'3": pinhole-0.125" diameter responses, 5 per inch 6'3"-8'1.5": pinhole-0.125" diameter responses, 5-10 per inch	6'3"-6'6": 90% 6'6"-6'10": 25% 6'10"-7'2": 75%	6'4"-6'6": black, discontinuous sand layer, breaks with finger pressure, high pore space 6'6"-6'10": medium dark gray, medium soft, moist silt 6'10"-8'1.5": medium dark gray, medium soft, moist silty clay	6'0": 92 ppm 6'6": 1488 ppm		
7	7'3"-7'11": pinhole-0.25" diameter responses, 5 per inch 7'11"-8'0": 1 - 1" response, 1 - 0.25" response 8'0"-8'4.5": No response	7'5"-7'11": stained with sheen, pinhole-0.25" diameter NAPL droplets, 20 per inch 7'11"-7'11.5": stained with sheen, pooling NAPL layer 7'11.5"-8'1.5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch		7'2"-7'2.5": 100% 7'2.5"-7'7": 50% 7'7"-7'10": 10% 7'10"-8'6": 50%		7'0": 84.2 ppm 7'6": 202 ppm		
8	8'4.5"-8'6.5": pinhole-0.125" diameter responses, 5 per inch 8'6.5"-8'8.5": No response at 8'8.5": 1 - 0.25" response, 1 - 0.5" response 8'8.5"-8'10.5": No response at 8'10.5": 1 - 0.75" response 8'10.5"-8'11.5": No response 8'11.5"-9'1.5": 2 - 1" diameter responses, 2 - 0.5" diameter responses, 3 - 0.25" diameter responses, 20% coverage	8'1.5"-8'10.5": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch at 8'7.5": stained with sheen, pooling NAPL nodule (sand) 8'10.5"-9'1.5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-20 per inch	8'1.5"-8'6.5": pinhole diameter responses, 10-15 per inch 8'6.5"-8'10.5": pinhole diameter responses, 5 per inch 8'10.5"-9'1.5": pinhole diameter responses, 2 per inch	8'6"-8'6.5": No response 8'6.5"-9'1.5": 20%	8'1.5"-9'1.5": dark gray, medium soft, moist silt at 8'7.5": moist 2" x 1" sand nodule, breaks with hand pressure at 8'11.5": 0.375" diameter hollow gray metal pipe, 0.5" long	8'0": 144 ppm 8'6": 365 ppm		
9						9'0": 199 ppm		

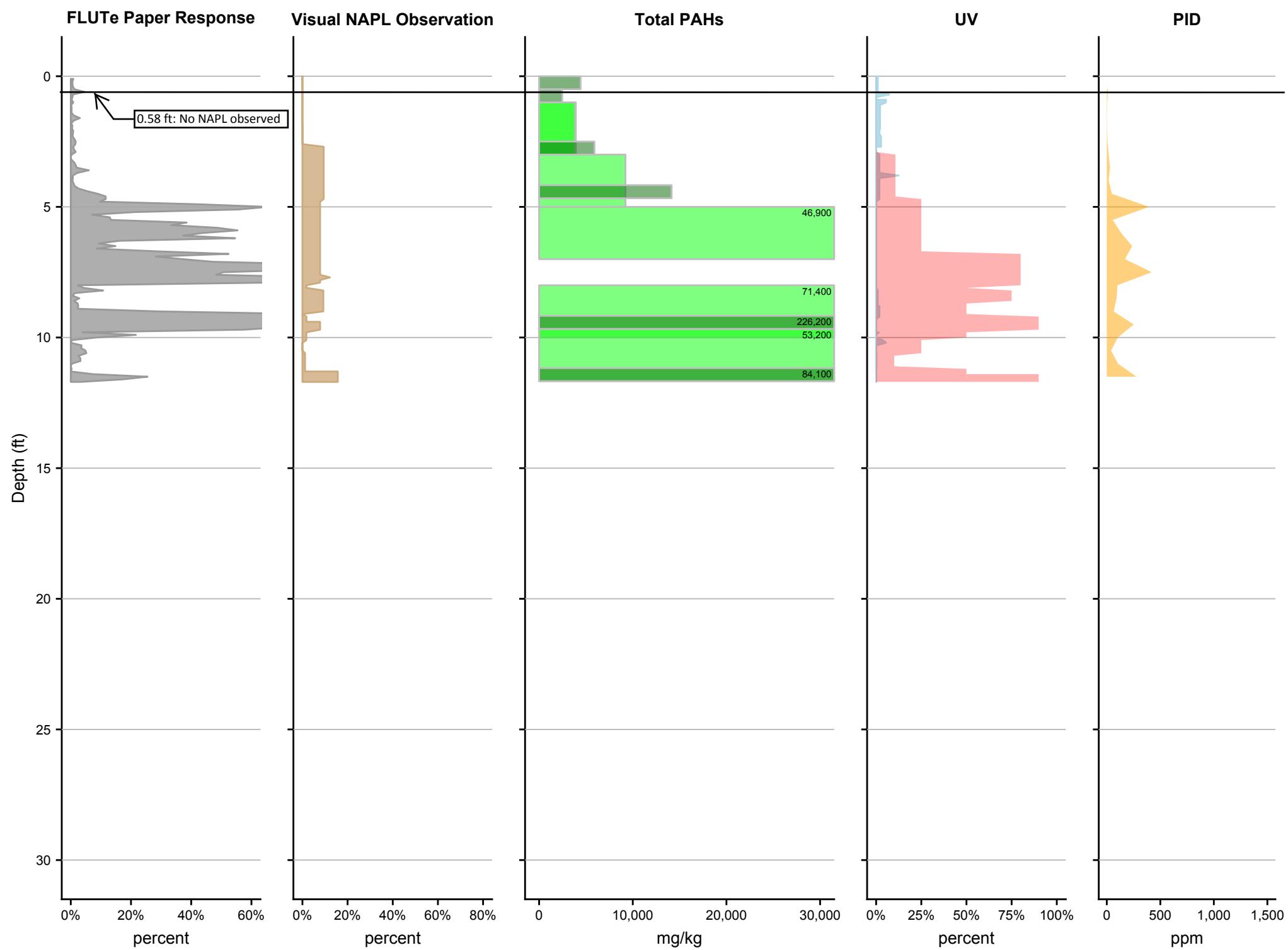
Photos unavailable
3'6"-8'1.5"

TTA-05-D



LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		TTA-05-D 1/25/2018 13:15 D. Burge, M. Conlon ASI	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 9'10" 718557.92, 633684.7	Comments:			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-0'6": No response at 0'6": - 0.0625" responses 0'6"-2'7": No response	0'0"-2'1": stained without sheen	0'0"-0'4": No response 0'4"-0'6": pinhole diameter responses, 0-5 per inch 0'6"-0'10": No response 0'10"-1'7": pinhole diameter responses, 0-5 per inch	0'0"-3'3": No response	0' 0"-0' 2": olive gray, gray brown, very soft, wet silt 0' 2"-1' 9": dark gray, soft, wet silt	0'6": 12.4 ppm		
1			1'7"-1'7.5": 7 - 0.125" responses 1'7.5"-1'9": No response 1'9"-1'11": pinhole diameter responses, 0-5 per inch 1'11"-2'0": 5 - pinhole-0.125" diameter responses		1' 9"-3' 1": dark gray, medium soft, very moist silt	1'0": 7 ppm 1'6": 6.5 ppm		
2	at 2'7": 1 pinhole diameter response 2'7"-3'3.5": No response	2'1"-2'7": stained with sheen 2'7"-2'10": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 2'10"-3'1": stained with sheen, oozing pinhole-0.25" diameter NAPL droplets, 10 per inch	2'0"-2'4": pinhole diameter responses, 0-5 per inch 2'4"-2'7": pinhole-0.25" diameter responses, 5-10 per inch at 2'7": 1 - non-continuous layer, 0.125" x 2" 2'7"-2'8": 1 - 0.125" x 0.25" response 2'8"-3'1": 0.125" x 0.25" responses, 2-5 per inch			2'0": 6.5 ppm 2'6": 13.4 ppm		
3	3'3.5"-3'6": pinhole diameter responses, 5-10 per inch 3'6"-4'0": pinhole-0.25" diameter responses, 5-10 per inch	3'1"-3'3": stained with sheen, oozing pinhole-0.125" diameter NAPL droplets, 0-5 per inch 3'3"-6'3": stained with sheen, oozing pinhole-0.25" diameter NAPL droplets, 10-15 per inch	3'1"-3'3": pinhole-0.125" diameter responses, 10 per inch 3'3"-3'8": pinhole diameter responses, 0-5 per inch at 3'5": 1 - 0.125" x 0.25" response 3'8"-4'6": pinhole diameter responses, 5 per inch	3'3"-3'11": 10-20% 3'11"-5'4": 20%	3' 1"-7' 10": dark gray, black, medium soft, moist silt	3'0": 8.1 ppm 3'6": 45.9 ppm		
4	4'0"-4'3": pinhole diameter responses, 0-5 per inch 4'3"-4'5": pinhole-0.125" diameter responses, 10 per inch 4'5"-4'9": pinhole-0.125" diameter responses, 5 per inch 4'9"-5'4": pinhole-0.125" diameter responses, 0-5 per inch		4'6"-4'10": pinhole-0.125" diameter responses, 5 per inch 4'10"-6'3": pinhole diameter responses, 0-5 per inch			4'0": 78.8 ppm 4'6": 63.1 ppm		
5	5'4"-6'4": 10 - 20% coverage				5'4"-5'10": 50% 5'10"-7'7": 50-75%			
6	6'4"-6'9": pinhole-0.125" diameter responses, 5-10 per inch 6'9"-7'3": pinhole-0.25" diameter responses, 0-5 per inch	6'3"-6'11": stained with sheen, oozing to pooling pinhole-0.5" diameter NAPL droplets, 10-15 per inch 6'11"-7'10": stained with sheen, oozing pinhole-0.25" diameter NAPL droplets, 5-10 per inch	at 6'3": 1 - pinhole-0.125" diameter response 6'3"-7'6": pinhole diameter responses, 5-10 per inch			6'0": 85.2 ppm 6'6": 35.2 ppm		
7	7'3"-7'8": pinhole diameter responses, 0-5 per inch 7'8"-7'9": pinhole-0.25" diameter responses, 10 per inch 7'9"-7'10": 5 pinhole diameter responses 7'10"-7'11": 10 - 0.125" responses 7'11"-8'1": pinhole diameter responses, 0-5 per inch	7'10"-9'5": stained with sheen, oozing 0.25" NAPL droplets, 10-15 per inch	7'6"-7'10": pinhole diameter responses, 0-5 per inch 7'10"-8'7": 0.125" responses, 10-15 per inch	7'7"-7'10": 80% 7'10"-8'5": 10%	7' 10"-9' 10": dark gray, very dark gray, medium soft, moist silt	7'0": 117 ppm 7'6": 56.2 ppm		
8	8'1"-8'7.5": No response 8'7.5"-8'8.5": 4 pinhole diameter responses 8'8.5"-9'0.5": No response		8'7"-9'0": pinhole diameter responses, 5-15 per inch at 8'9.5": 1 - 0.25" response	8'5"-8'10": 25% 8'10"-9'7": 50%		8'0": 101 ppm 8'6": 83.7 ppm		
9	at 9'0.5": 2 - 0.125" responses 9'0.5"-9'2": No response 9'2"-9'3": pinhole diameter responses, 0-5 per inch at 9'3": 1 0.125" response 9'3"-9'7": No response 9'7"-9'9": pinhole diameter responses, 5-10 per inch 9'9"-9'10": No response at 9'10": 1 pinhole	9'5"-9'10": stained with sheen, oozing pinhole-0.25" diameter NAPL droplets, 15-20 per inch	9'0"-9'6": pinhole-0.125" diameter responses, 5-10 per inch 9'6"-9'9": pinhole-0.125" diameter responses, 10-20 per inch 9'9"-9'10": 5 - pinhole diameter responses	9'7"-9'10": 80%		9'0": 109 ppm 9'6": 106 ppm		

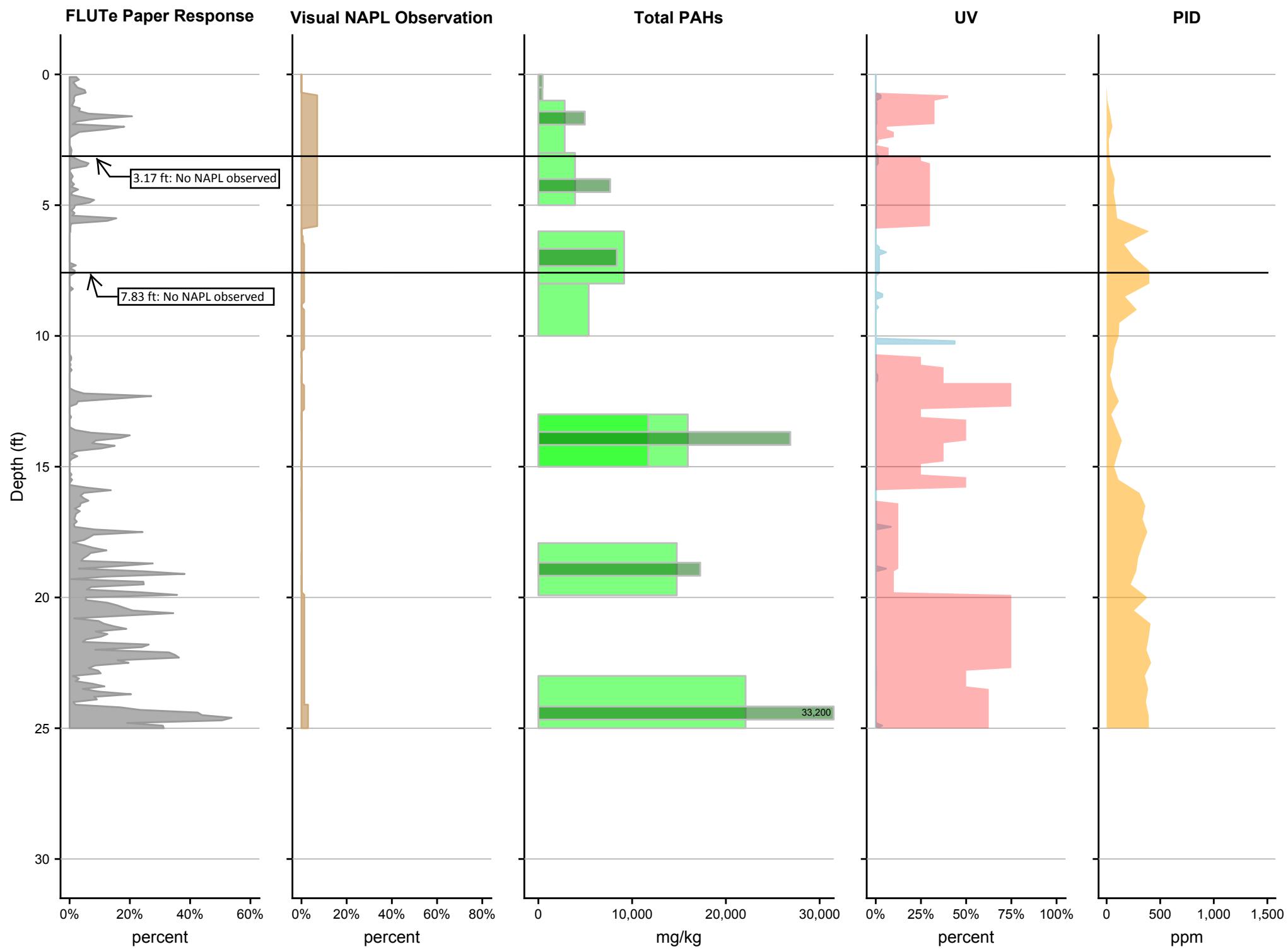
TTA-06-D



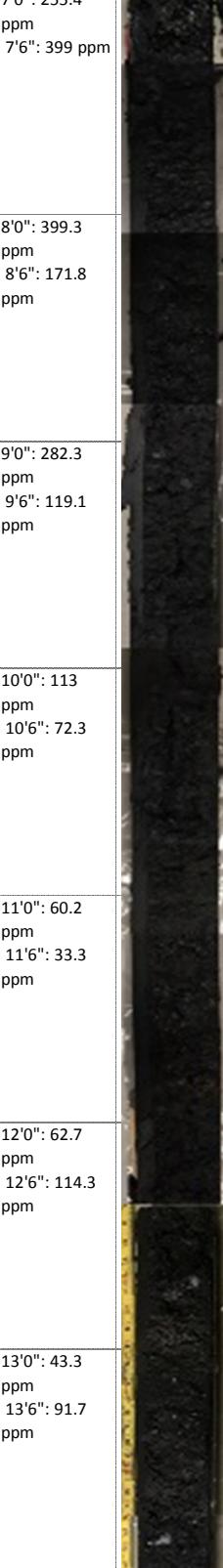
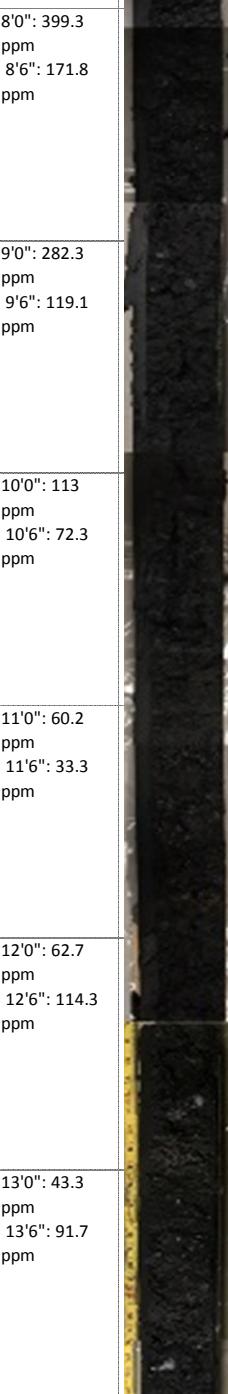
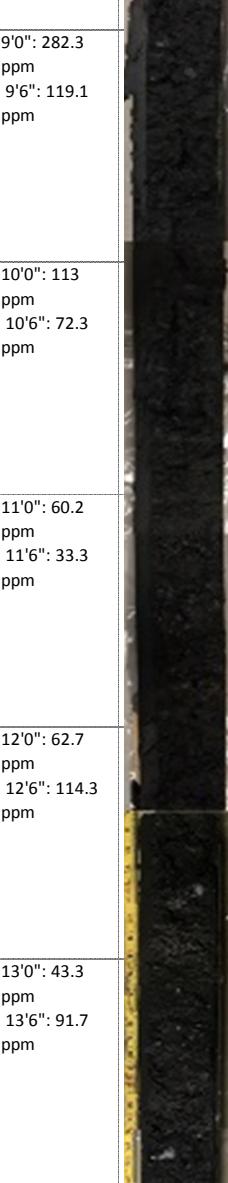
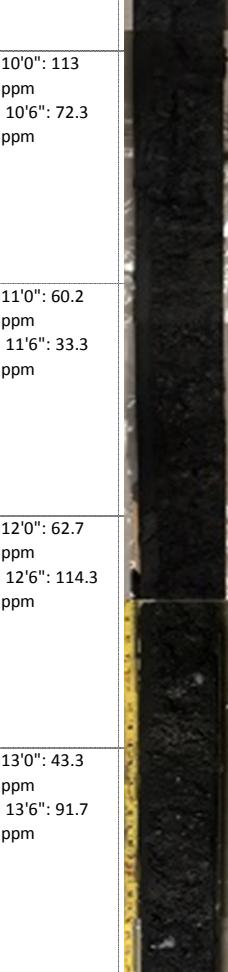
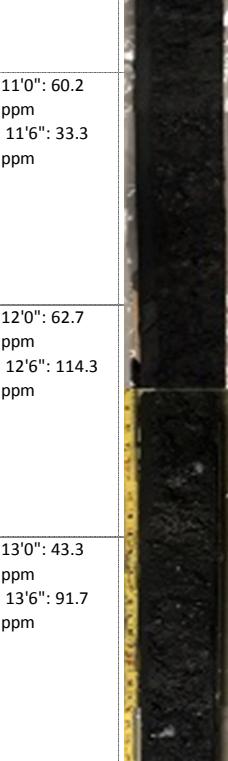
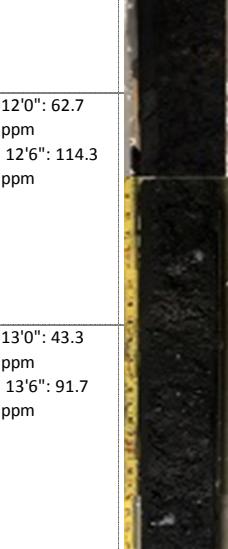
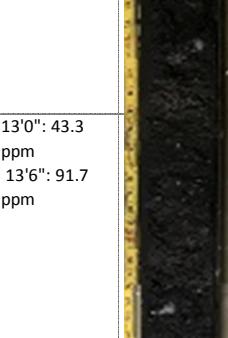
LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		TTA-06-D 1/25/2018 13:40 D. Burge ASI	SAMPLING METHOD: CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 11'8" NORTHING/EASTING: 718598.47, 633703.26 DEPTH TO TOP OF SEDIMENT:	Vibracore	Comments:			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-0'7.5": No response at 0'7.5": 5 - 0.125" responses 0'7.5"-2'8": No response	0'0"-0'2.5": None 0'2.5"-0'7": stained with sheen 0'7"-1'8": stained with light sheen	0'0"-0'8": pinhole-0.125" diameter responses, 5 per inch 0'8"-0'8.5": 1 - 0.25" x 0.5" response 0'8"-0'8.5": 3 - pinhole responses 0'8.5"-0'11": pinhole responses, 5 per inch 0'11"-1'0": 30 - pinhole-0.125" diameter	0'0"-3'0": No response	0' 0"-0' 2.5": brown to brown gray, very soft, wet silt 0' 2.5"-0' 7": dark gray, very soft to soft, wet silt 0' 7"-1' 8": dark gray, soft, wet silt	0'6": 11.4 ppm		
1		1'8"-2'0": stained with sheen at 1'11": stained with sheen, pinhole-0.125" diameter NAPL droplets	1'0"-2'0": pinhole-0.25" diameter responses, 3 per inch		1' 8"-2' 0": medium dark gray, medium soft, very moist silt	1'0": 4.1 ppm 1'6": 1.7 ppm		
2	2'8"-2'10": 10 pinhole responses 2'10"-3'4": No response	2'0"-2'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 3 per inch 2'8"-4'8": stained with sheen, 0.125-0.5" diameter oozing NAPL droplets, 10 per inch	2'0"-2'2": pinhole-0.125" diameter responses, 10 per inch 2'2"-2'4": pinhole responses, 2 per inch 2'4"-2'8": pinhole-0.125" diameter responses, 15 per inch 2'8"-3'0": pinhole responses, 5 per inch		2' 0"-4' 8": dark gray, medium soft, very moist silt	2'0": 2.8 ppm 2'6": 6.5 ppm		
3	3'4"-3'6": 10 pinhole-0.125" diameter responses 3'6"-3'8": 20 pinhole-0.25" diameter responses 3'8"-4'5": pinhole-0.25" diameter responses, 5 per inch		3'0"-3'10": pinhole-0.125" diameter responses, 10 per inch at 3'10": 1 - 0.125"-thick layer 3'10"-4'8": pinhole-0.125" diameter responses, 5-10 per inch	3'0"-3'10": 0.25-0.5" diameter responses, 3 per inch 3'10"-4'8": 0.25" by 0.5" response		3'0": 18.1 ppm 3'6": 29.2 ppm		
4	4'5"-4'8": 0.125-0.25" diameter responses, 10 per inch 4'8"-4'11": pinhole-0.125" diameter responses, 10 per inch 4'11"-5'1.5": 50% coverage	4'8"-6'3": stained with sheen, pinhole-0.75" diameter oozing NAPL droplets, 10 per inch	4'8"-6'9": pinhole-0.75" diameter responses, 2-5 per inch	4'8"-6'10": 25% coverage	4' 8"-9' 2.5": dark gray to black, medium soft, moist silt	4'0": 18.2 ppm 4'6": 48 ppm		
5	5'1.5"-5'7": pinhole-0.25" diameter responses, 5-10 per inch 5'7"-5'10": pinhole - 0.75" diameter responses, 30% coverage 5'10"-5'11": 3 - 0.125" responses 5'11"-6'6": pinhole - 1" diameter responses, 20% coverage					5'0": 395 ppm 5'6": 55.1 ppm		
6	6'6"-6'9": pinhole-0.125" diameter responses, 10-15 per inch 6'9"-6'11": pinhole - 1.25" diameter responses, 50% coverage 6'11"-7'0": No response	6'3"-6'3.5": stained with sheen, 1 - 0.25" diameter oozing NAPL layer 6'3.5"-7'8": stained with sheen, pinhole-0.75" diameter NAPL droplets, 10 per inch	6'9"-6'10": 20 - pinhole responses 6'10"-8'0": pinhole responses, 1-5 per inch	6'10"-8'0": 80% coverage		6'0": 135 ppm 6'6": 237 ppm		
7	7'0"-7'7.5": continuous stain 50% coverage 7'7.5"-7'10.5": 95% coverage 7'10.5"-8'2": pinhole responses, 5 per inch	7'8"-7'8.5": stained with sheen, 1 - pooling NAPL layer 7'8.5"-7'11": stained with sheen, pinhole-0.75" diameter NAPL droplets, 10 per inch 7'11"-8'3": stained with sheen, pinhole-0.25" diameter oozing NAPL droplets, 15 per inch				7'0": 170 ppm 7'6": 420 ppm		
8	8'2"-8'4": pinhole - 0.25" diameter responses, 20% coverage 8'4"-9'1.5":pinhole - 0.25" diameter responses, 5% coverage	8'3"-9'0": stained with sheen, pinhole-0.5" diameter oozing NAPL droplets, 10 per inch	8'0"-8'3": pinhole responses, 5 per inch 8'3"-8'9": pinhole-0.125" diameter responses, 5 per inch 8'9"-9'2": pinhole-0.125" diameter responses, 10 per inch	8'0"-8'3": 50% coverage 8'3"-8'7": 75% coverage 8'7"-9'2": 50% coverage		8'0": 100 ppm 8'6": 91.5 ppm		
9	9'1.5"-9'8": stain, 95% coverage 9'8"-9'10": pinhole - 0.25" diameter responses, 10% coverage 9'10"-9'11": pinhole - 0.75" diameter responses, 25% coverage 9'11"-10'2": No response	9'0"-9'2.5": stained with sheen, pinhole-0.125" diameter oozing NAPL droplets, 5 per inch 9'2.5"-9'4.5": stained with sheen, 1 - pooling layer 9'4.5"-9'8": stained with sheen, pinhole-0.75" diameter pooling NAPL droplets, 10 per inch 9'8"-10'1": stained with sheen, 0.25" diameter NAPL droplets, 10-15 per inch	9'2"-9'8": No response 9'8"-9'10": pinhole responses, 5-10 per inch at 9'10": 1 - 0.25" diameter response 9'10"-10'1": pinhole responses, 5-10 per inch	9'2"-9'8": 90% coverage 9'8"-10'0": 50% coverage	9' 2.5"-9' 4.5": dark gray, black, medium soft, moist with some silt at 9' 3": leaf remnants 9' 4.5"-9' 8": dark gray, medium soft, moist silt 9' 8"-11' 8": gray, medium soft, silt	9'0": 64.8 ppm 9'6": 251 ppm		
10	10'2"-10'5": pinhole responses, 0-5 per inch 10'5"-10'9": 1. 0.25" by 2.5" response, pinhole - 0.25" diameter responses, 5% coverage 10'9"-10'10": No response 10'10"-11'0": 5% coverage	10'1"-10'7": stained with sheen, oozing NAPL droplets, 10-15 per inch 10'7"-11'4": stained with sheen, 0.25" diameter NAPL droplets, 5 per inch	at 10'1": 1 - 1" x 0.125" response 10'1"-10'2": No response at 10'2": 1 - 1.5" x 0.125" response 10'2"-10'4": pinhole responses, 5-10 per inch 10'4"-10'7": No response 10'7"-11'3": pinhole responses, 20-30 per inch	10'0"-10'7": 25% coverage 10'7"-11'2": 10% coverage		10'0": 103 ppm 10'6": 40.6 ppm		

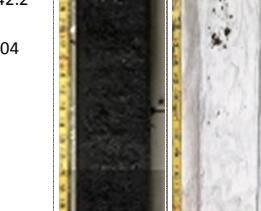
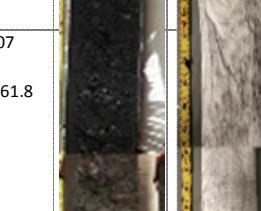
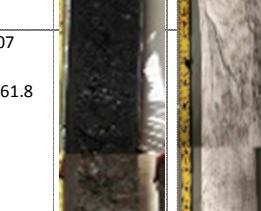
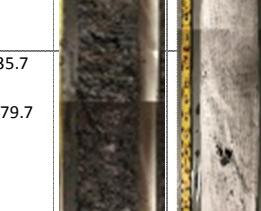
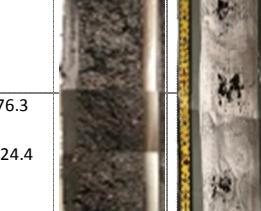
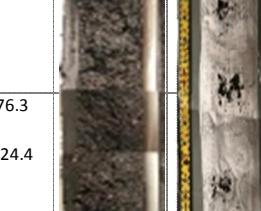
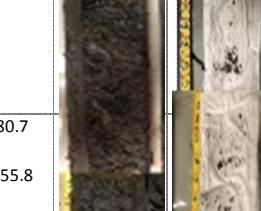
LOCATION: TTA-06-D DATE: 1/25/2018 TIME: 13:40 LOGGED BY: D. Burge DRILLING COMPANY: ASI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 11'8" NORTHING/EASTING: 718598.47, 633703.26 DEPTH TO TOP OF SEDIMENT:	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11	11'0"-11'2": No response 11'2"-11'4": pinhole responses, 0-10 per inch 11'4"-11'8": stain, 80% coverage	11'4"-11'8": stained with sheen, pinhole-0.75" diameter pooling NAPL droplets, 20 per inch	11'3"-11'5": pinhole responses, 5 per inch 11'5"-11'8": No response	11'2"-11'5": 50% coverage 11'5"-11'8": 90% coverage	at 11' 7": fibrous material	11'0": 104 ppm 11'6": 277 ppm		

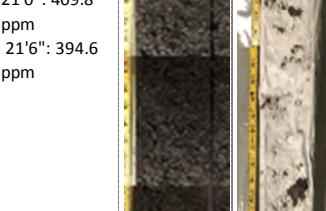
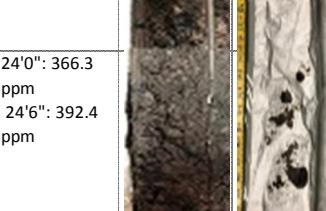
VC-05B



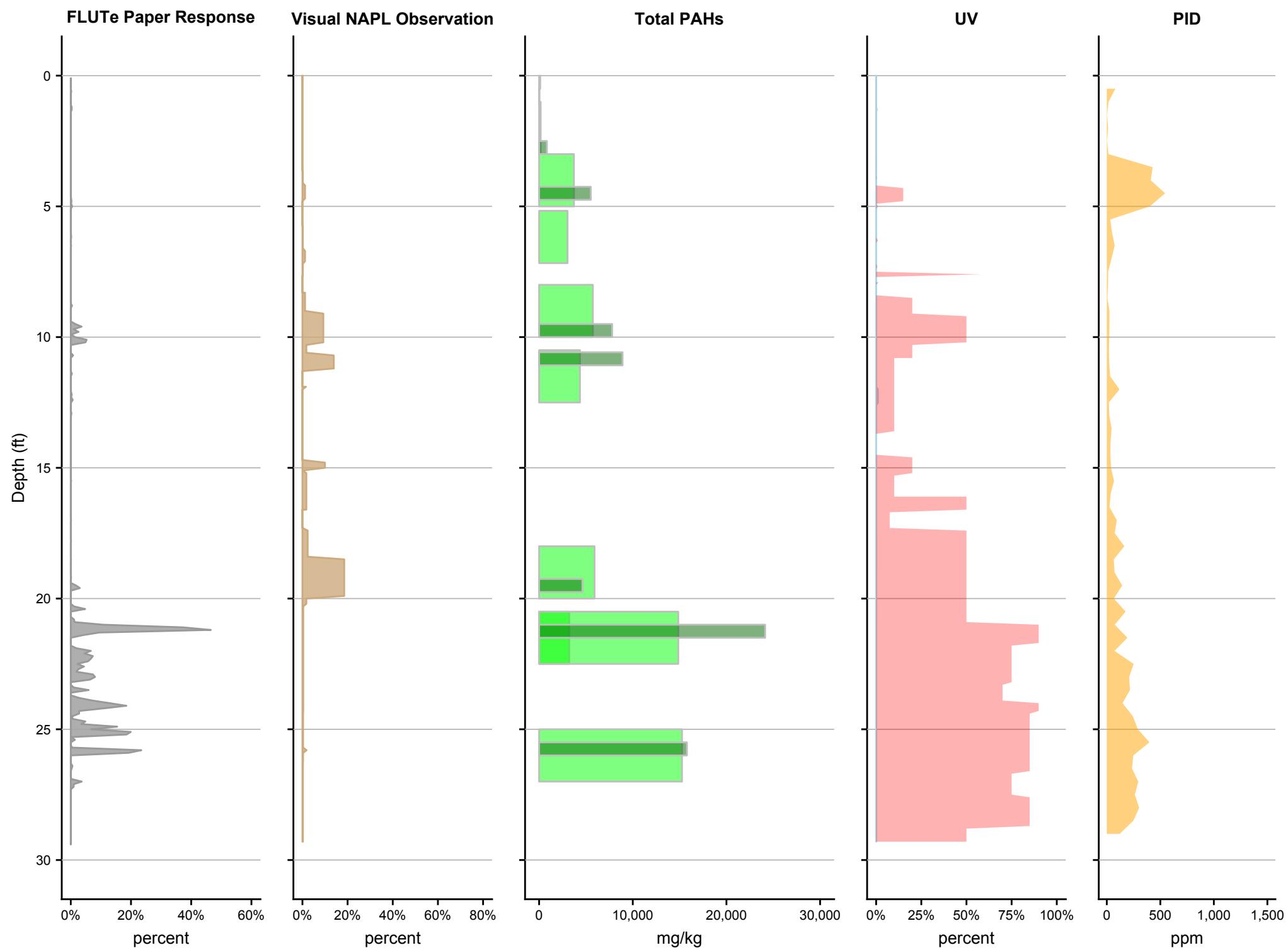
LOCATION: VC-05b DATE: 2/4/2018 TIME: 12:58 LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 25'0" NORTHING/EASTING: 718562.28, 633798.29 DEPTH TO TOP OF SEDIMENT: 2.9	Comments:	RAMBOLL			
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-1'1": No response	0'0"-0'9.5": stained with sheen 0'9.5"-2'7": stained with sheen, oozing NAPL	0'0"-0'3": No response 0'3"-0'5": pinhole diameter responses, 0-5 per inch 0'9.5"-0'11": pinhole-0.125" diameter responses, 10-15 per inch 0'11"-1'1.5": No response	0'0"-0'5": No response 0'9.5"-0'11": 40% 0'11"-0'11.5": No response 0'11.5"-1'11": 25-40%	0' 0"-0' 5": olive gray, soft, moist loose silt 0' 5"-3' 10": dark gray, soft, moist silt	0'6": 1.2 ppm		
1	1'1"-1'2": 10 0.125-0.25" diameter responses 1'2"-1'3": No response 1'3"-1'11.5": 0.125"-0.25" diameter responses, 10% coverage 1'11.5"-3'3.5": No response		1'1.5"-2'2.5": pinhole diameter responses, 5-10 per inch 1'1.5"-1'11": trace 0.25" to 0.5" long fibrous responses	1'11"-2'2.5": 6 - 0.25 to 0.5" diameter responses		1'0": 8.2 ppm 1'6": 33.9 ppm		
2		2'7"-3'1": stained with sheen, NAPL droplets	2'2.5"-2'5": pinhole diameter responses, 10-15 per inch 2'5"-2'7.5": pinhole diameter responses, 30-40 per inch 2'7.5"-3'4.5": pinhole diameter responses, 5-10 per inch	2'2.5"-2'5": 10% 2'5"-2'7.5": 1 - 0.25" x 0.5" response 2'7.5"-2'10": No response 2'10"-3'1.5": 1 - 0.25" response (streak)	at 2' 2": 0.25" shell	2'0": 54 ppm 2'6": 20.1 ppm		
3	at 3'3.5": 1 - 0.25" response 3'3.5"-3'4": No response at 3'4": 3 - 0.125" responses 3'4"-4'2": No response	3'1"-3'5": stained with sheen, oozing NAPL 3'5"-4'1": stained with sheen, NAPL droplets	3'1.5"-3'4.5": 1 fibrous material response 3'4.5"-5'9": pinhole diameter responses, 15-20 per inch and trace fibrous materials responses	3'1.5"-3'4.5": 0.25" to 0.5" diameter responses, 25% 3'4.5"-5'9": 30%	3' 10"-5' 9": dark gray, medium soft, moist silt	3'0": 23.7 ppm 3'6": 38.3 ppm		
4	at 4'2": 1 - 0.25" response 4'2"-4'3": No response 4'3"-4'4": 3 - pinhole diameter responses 4'4"-4'7": No response at 4'7": 1 - 0.5" diameter response 4'7"-5'4.5": No response	4'1"-5'9": stained with sheen, oozing NAPL				4'0": 76.6 ppm 4'6": 65.6 ppm		
5	5'4.5"-5'5.5": 25% coverage 5'5.5"-7'2.5": No response	5'9"-6'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch	5'9"-6'3": pinhole diameter responses, 2-5 per inch	5'9"-10'9": No response	5' 9"-10' 9": dark gray to black soft, moist to very moist	5'0": 85.3 ppm 5'6": 98.2 ppm		
6		6'3"-6'6": stained with sheen, pinhole-0.25" diameter NAPL droplets, up to 5 per inch 6'6"-8'8": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch	6'3"-6'4": 5 - pinhole diameter responses 6'4"-6'7": pinhole diameter responses, 2-5 per inch 6'7"-6'9": pinhole-0.125" diameter responses, 5-10 per inch at 6'9": 1 - 0.5" response 6'9"-7'7": pinhole-0.125" diameter responses, 5-10 per inch			6'0": 397 ppm 6'6": 163.3 ppm		

		LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:	VC-05b 2/4/2018 12:58 E. Emery, D. Burge OSI	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 25'0" 718562.28, 633798.29 2.9	Comments:	RAMBOLL	
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
7	at 7'2.5": 2 - pinhole diameter responses, 1 - 0.25" x 0.125" response 7'2.5"-7.5": No response at 7'5": 2 - pinhole diameter responses 7'5"-7'6": No response at 7'6": 2 - 0.125" diameter responses 7'6"-7'9": No response 7'9"-7'10": 4 - pinhole diameter responses 7'10"-8'2": No response		7'7"-8'5": pinhole diameter responses, 5-10 per inch		at 7' 4": fibrous material	7'0": 255.4 ppm 7'6": 399 ppm		
8	at 8'2": 1 - pinhole diameter response 8'2"-8'5": No response at 8'5": 2 - pinhole diameter responses 8'5"-8'6": No response at 8'6": 1 - 0.125" diameter response 8'6"-9'10": No response	8'8"-9'0": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch	8'5"-8'6": 1 - 1" x 0.125" response 8'6"-8'11": pinhole diameter responses, 5-10 per inch at 8'11": 1 - 0.25" response 8'11"-10'3": pinhole diameter responses, 2-10 per inch			8'0": 399.3 ppm 8'6": 171.8 ppm		
9	9'10"-9'11": 4 - pinhole diameter responses 9'11"-10'4": No response	9'0"-10'6": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch				9'0": 282.3 ppm 9'6": 119.1 ppm		
10	at 10'4": 3 - pinhole diameter responses 10'4"-12'1": No response	10'6"-10'9": stained with sheen, pinhole diameter NAPL droplets, up to 5 per inch 10'9"-10'11": stained with sheen, pinhole diameter NAPL droplets, 2 per inch 10'11"-11'5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	10'3"-10'4": 1 - 1" x 1.5" response 10'4"-10'9": pinhole diameter responses, 2-5 per inch 10'9"-10'11": No response 10'11"-11'0": 5 - pinhole diameter responses	10'9"-11'3": 25%	10' 9"-12' 10": dark gray to very dark gray, medium soft, silt	10'0": 113 ppm 10'6": 72.3 ppm		
11		11'5"-11'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch 11'11"-12'10": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch	11'0"-11'6": pinhole diameter responses, 2-5 per inch 11'6"-11'8": pinhole-0.125" diameter responses, 5 per inch 11'8"-12'8": pinhole diameter responses, 2-4 per inch	11'3"-11'10": 25-50% 11'10"-12'8": 75%		11'0": 60.2 ppm 11'6": 33.3 ppm		
12	12'1"-12'3": pinhole diameter responses, 2-4 per inch 12'3"-12'5": pinhole-0.125" diameter responses, 25% coverage 12'5"-12'7": pinhole diameter responses, 2-5 per inch 12'7"-13'5": No response	12'10"-13'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5 per inch	12'8"-13'8": pinhole diameter responses, 5-10 per inch	12'8"-13'3": 25%	12' 10"-15' 9": very dark gray, medium soft, silt	12'0": 62.7 ppm 12'6": 114.3 ppm		
13	13'5"-13'8": pinhole diameter responses, 2 per inch 13'8"-14'3": pinhole-0.25" diameter responses, 10% coverage	13'8"-14'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	13'8"-14'9": pinhole diameter responses, 1-3 per inch	13'3"-14'0": 50%		13'0": 43.3 ppm 13'6": 91.7 ppm		

LOCATION: VC-05b DATE: 2/4/2018 TIME: 12:58 LOGGED BY: E. Emery, D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 25'0" NORTHING/EASTING: 718562.28, 633798.29 DEPTH TO TOP OF SEDIMENT: 2.9	Comments:			RAMBOLL	
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
14	14'3"-14'8": pinhole-0.25" diameter responses, 2 per inch 14'8"-15'5": No response	14'8"-15'2": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	14'9"-15'9": pinhole diameter responses, 5 per inch	14'0"-14'9": 25-50% 14'9"-15'5": 25%		14'0": 142.2 ppm 14'6": 104 ppm		
15	15'5"-15'9": pinhole-0.125" diameter responses, 2-5 per inch 15'9"-15'10": No response 15'10"-15'11.5": 5-10 pinhole diameter responses, 4 - 0.125" diameter responses, 1 - diameter 0.25" response 15'11.5"-16'2": No response	15'2"-15'9": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 15'9"-16'9": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch	15'9"-18'11": pinhole diameter responses, 25-30 per inch	15'5"-15'9": 50% 15'9"-16'5": No response	15' 9"-25' 0": dark gray, medium firm, silt at 15' 10.5": light brown, 0.125" layer at 15' 11.5": light brown, 0.125" layer	15'0": 69.8 ppm 15'6": 111.3 ppm		
16	16'2"-16'3": 3 pinhole diameter responses 16'3"-17'1.5": No response	16'9"-18'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch		16'5"-18'11": 25%	at 16' 3.5": light brown, 0.125" layer	16'0": 307 ppm 16'6": 361.8 ppm		
17	17'1.5"-17'2.5": 4 - 0.125" responses 17'2.5"-17'4.5": No response 17'4.5"-17'9.5": 20 pinhole diameter responses, 1 - 0.5" x 1" response, 4 - 0.25" diameter responses, 1 - 0.5" diameter response 17'9.5"-18'8.5": No response		at 17'4": 1 - 0.125" layer across 2/3 of core		at 17' 3": 0.25" x 0.5" hollow shell at 17' 5": light brown, 0.125" layer at 17' 7.5": light brown, 0.125" layer at 17' 10": light brown, 0.125" layer	17'0": 335.7 ppm 17'6": 379.7 ppm		
18	18'8.5"-18'10": 10-15% coverage 18'10"-19'0": No response	18'3"-18'11.5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch 18'11.5"-19'1": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	at 18'10.5": 1 - 0.50" response 18'11"-22'8": pinhole diameter responses, 5-10 per inch	18'11"-19'11": 10%	at 18' 4.5": light brown, 0.125" layer	18'0": 333.7 ppm 18'6": 293.8 ppm		
19	19'0"-19'1.5": 20-25% coverage 19'1.5"-19'4.5": No response 19'4.5"-19'6": 10-15% coverage 19'6"-19'8": No response at 19'8": 1 - 0.25" diameter response 19'8"-19'9": No response 19'9"-19'10": 20-25% coverage 19'10"-19'11": No response 19'11"-22'11": 5-10% coverage	19'1"-19'11": stained with sheen, pinhole-0.125" diameter NAPL droplets, 0-5 per inch 19'11"-24'1": stained with sheen, 0.125-0.25" diameter NAPL droplets, 5-10 per inch		19'11"-22'8": 75%		19'0": 276.3 ppm 19'6": 224.4 ppm		
20						20'0": 380.7 ppm 20'6": 255.8 ppm		

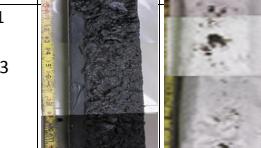
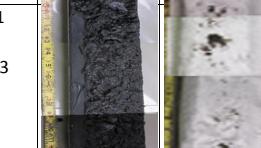
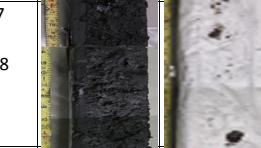
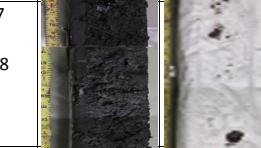
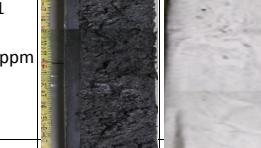
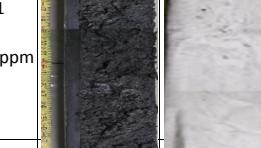
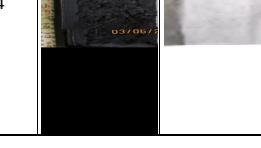
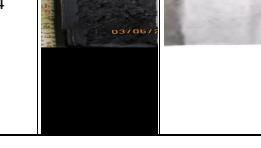
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Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
21	at 21'0": 1 - 0.75-1" diameter response at 21'9": 1 - 0.5" diameter response				at 21' 2": fibrous material	21'0": 409.8 ppm 21'6": 394.6 ppm		
22	at 22'0": 1 - 0.5" diameter response at 22'0": 4 - 0.5" diameter responses 22'5"-23'6": 5 - 0.5" diameter responses 22'8.5"-22'10": 12 - 0.25" diameter responses		22'8"-23'6": pinhole diameter responses, 25-30 per inch	22'8"-23'6": 50%	at 22' 1": coal-like material 0.75" diameter, very fracturable with finger pressure at 22' 9": coal-like material, does not break with finger pressure	22'0": 371.7 ppm 22'6": 415.9 ppm		
23	23'3.5"-23'5": 5 pinhole diameter responses 23'6"-23'6.5": No response 23'6.5"-23'9.5": 10 pinhole diameter responses 23'6.5"-23'9.5": 10 - 0.25" diameter responses 23'9.5"-24'2": No response		23'6"-25'0": pinhole diameter responses, 5-10 per inch	23'6"-25'0": 50-75%		23'0": 356.5 ppm 23'6": 387.8 ppm		
24	24'2"-24'3": No response at 24'2": 1 - 0.75" diameter response at 24'2": 1 - 1.5" x 0.25" response 24'3"-24'7.5": 25% coverage 24'7.5"-24'9": No response 24'9"-25'0": 15-20% coverage	24'1"-25'0": stained with sheen, 0.25" NAPL droplets, 10-15 per inch	at 24'10.5": 1 - 0.25-0.50" diameter response			24'0": 366.3 ppm 24'6": 392.4 ppm		
25						25'0": 396.1 ppm		

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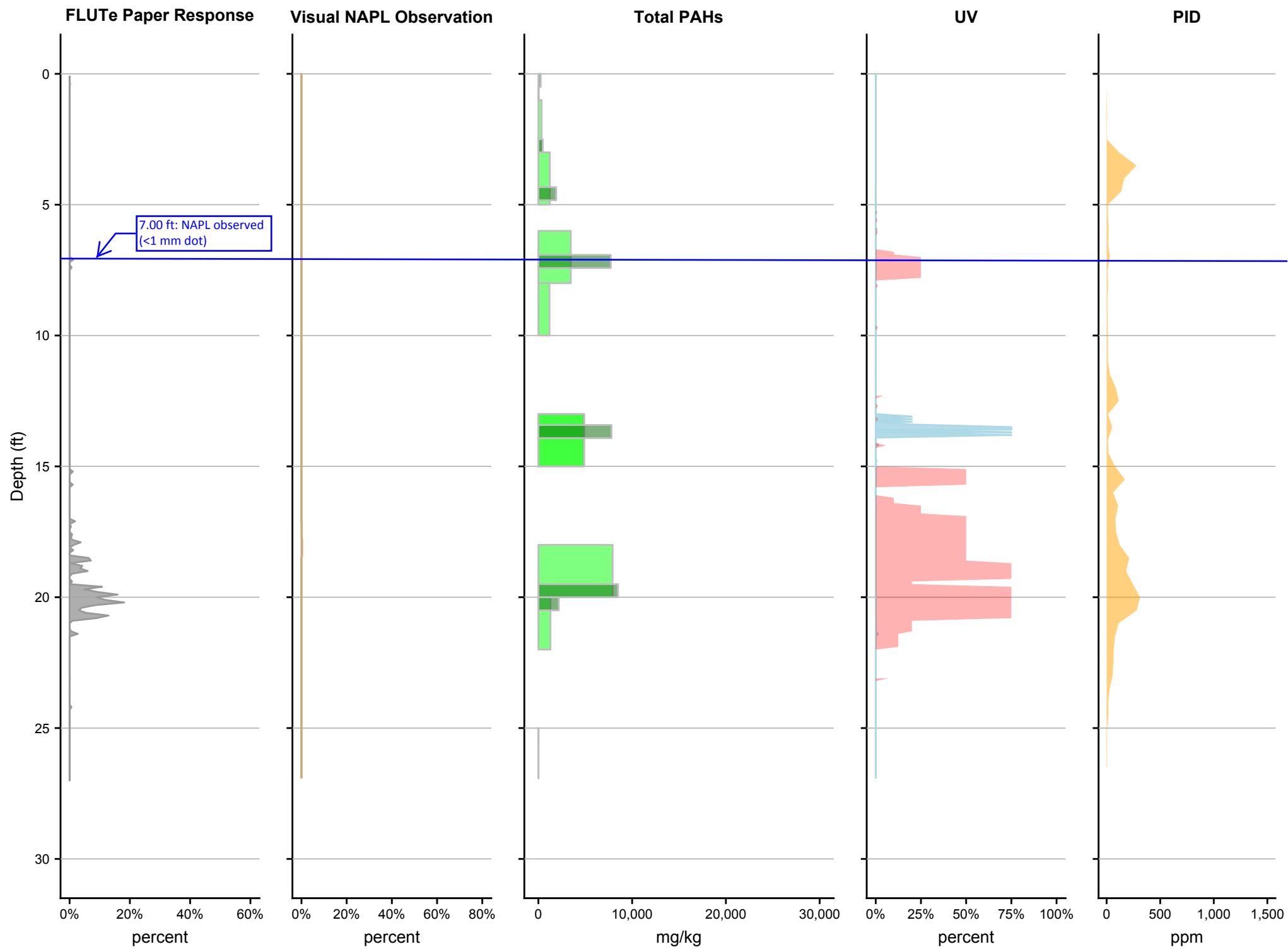


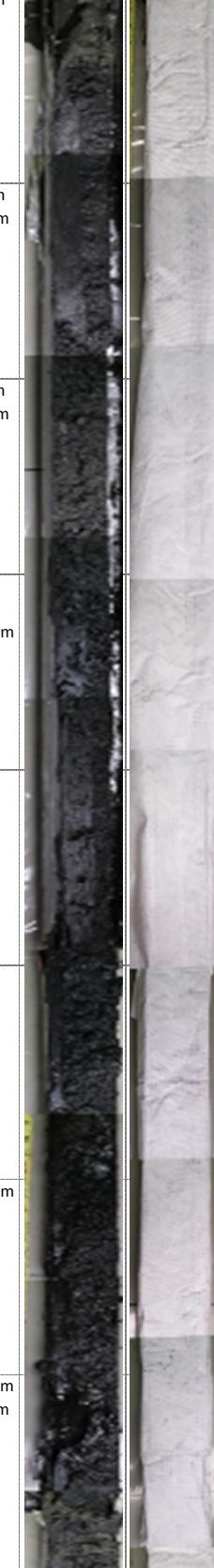
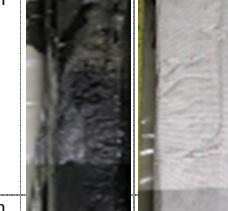
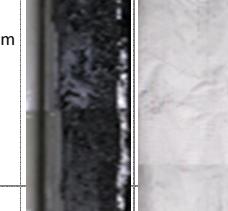
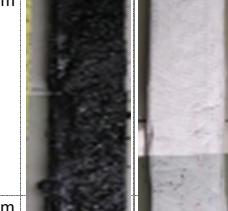
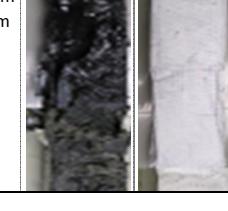
LOCATION: DATE: TIME: LOGGED BY: DRILLING COMPANY:		VC-05b-1 3/4/2018 12:42 D. Burge OSI	SAMPLING METHOD: CORE DIAMETER: CORE DEPTH (RECOVERY): NORTHING/EASTING: DEPTH TO TOP OF SEDIMENT:	Vibracore 4" 29'4" 718552.9, 633847.48 5.1	Comments:	RAMBOLL		
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-3'11": No response	0'0"-2'11": None	0'0"-1'4": No response	0'0"-3'11": No response	0' 0"-0' 4": olive gray, gray, very soft, wet silt 0' 4"-1' 9": olive gray to dark gray, very soft, wet silt at 0' 10": trace white shell fragment	0'6": 80.3 ppm		
1			at 1'4": 1 - 0.125" response 1'4"-3'2": No response		1' 9"-2' 0": olive gray to dark gray, soft, wet silt	1'0": 16.5 ppm 1'6": 2.6 ppm		
2		2'11"-3'8": stained with sheen			2' 0"-2' 8": olive gray, soft, wet silt, 5% shell fragments up to 0.25" diameter 2' 8"-2' 11": olive gray, soft, wet silt 2' 11"-3' 8": dark gray, soft, wet silt	2'0": 12.9 ppm 2'6": 2.9 ppm		
3	at 3'11": 3 pinhole diameter responses 3'11"-4'9": No response	3'8"-4'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	3'2"-3'8": pinhole diameter responses, 5 per inch 3'8"-4'2": pinhole diameter responses, 2 per inch	at 3'11": 1 - 0.125" diameter response 3'11"-4'4": No response	3' 8"-5' 2": dark gray, medium soft, wet silt	3'0": 15.3 ppm 3'6": 428.3 ppm		
4	at 4'9": 2 pinhole diameter responses 4'9"-8'10": No response	4'3"-4'8": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10 per inch 4'8"-5'2": stained with sheen, pinhole diameter NAPL droplets, 10 per inch	4'2"-4'8": pinhole diameter responses, 2-5 per inch 4'8"-5'2": pinhole diameter responses, 2 per inch	4'4"-4'9": 10 - 20% 4'9"-5'0": No response		4'0": 410.2 ppm 4'6": 544.8 ppm		
5		5'2"-5'10": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch 5'10"-6'8": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch	5'2"-6'11": pinhole diameter responses, 2-5 per inch	at 5'0": 3 - 0.125" diameter responses 5'0"-6'4": No response	5' 2"-10' 2": dark gray, medium soft, very moist silt, trace clay	5'0": 402 ppm 5'6": 32.1 ppm		
6		6'8"-7'1": stained with sheen, pinhole-0.25" diameter NAPL droplets, 5-10 per inch	6'11"-7'7": pinhole diameter responses, 5-10 per inch	at 6'4": 3 - 0.125" diameter responses 6'4"-7'4": No response		6'0": 49.2 ppm 6'6": 73.6 ppm		
7		7'1"-7'7": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10 per inch 7'7"-8'4": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	7'7"-8'2": pinhole diameter responses, 0-2 per inch	at 7'4": 2 - 0.125" diameter responses 7'4"-7'7": No response at 7'7": 1 - 8" x 0.25" response 7'7"-7'11": No response at 7'11": 1 - 0.25" diameter response 7'11"-8'1": No response		7'0": 44 ppm 7'6": 12.7 ppm		
8	at 8'10": 1 pinhole diameter response 8'10"-9'3": No response	8'4"-9'1": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10 per inch	8'2"-8'10": pinhole diameter responses, 5 per inch 8'10"-9'8": pinhole diameter responses, 5-10 per inch	8'6"-9'2": 20%		8'0": 12.1 ppm 8'6": 5.7 ppm		
9	at 9'3": 2 pinhole diameter responses 9'3"-9'6": No response 9'6"-10'2": pinhole-0.125" diameter responses, 2-5 per inch	9'1"-10'2": stained with sheen, pinhole-0.5" diameter NAPL droplets, 10 per inch	9'8"-10'2": pinhole diameter responses, 5 per inch	9'2"-10'2": 50%		9'0": 25.1 ppm 9'6": 25.1 ppm		
10	10'2"-10'3": No response at 10'3": 1 pinhole diameter response 10'3"-10'7": No response at 10'7": 1 pinhole diameter response 10'7"-13'0": No response	10'2"-10'8": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch 10'8"-11'2": stained with sheen, pinhole-0.5" diameter NAPL droplets, 10-15 per inch	10'2"-11'4": pinhole diameter responses, 0-2 per inch	10'2"-10'10": 20% 10'10"-13'7": 10%	10' 2"-12' 0": dark gray, medium soft, moist silt, trace clay	10'0": 22.4 ppm 10'6": 20.2 ppm		

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Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
11		11'2"-12'0": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch at 11'11": 0.125" thick wet layer water with sheen	11'4"-11'8": pinhole diameter responses, 5-10 per inch 11'8"-12'0": pinhole diameter responses, 0-2 per inch		at 11' 11": 0.125" thick wet layer (water with sheen)	11'0": 23.1 ppm 11'6": 31.4 ppm		
12		12'0"-14'9": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	12'0"-12'6": pinhole-0.125" diameter responses, 5 per inch 12'6"-12'10": pinhole diameter responses, 10 per inch 12'10"-13'7": pinhole diameter responses, 2-5 per inch		12' 0"-15' 2": olive gray, medium soft, moist silt, trace clay	12'0": 118.6 ppm 12'6": 19.6 ppm		
13	at 13'0": 1 pinhole diameter response 13'0"-14'4": No response		13'7"-14'5": pinhole diameter responses, 5 per inch	13'7"-14'7": No response	13' 2"-13' 5": trace white shell fragments <0.125" diameter	13'0": 23.3 ppm 13'6": 44.3 ppm		
14	at 14'4": 1 pinhole diameter response 14'4"-14'8": No response at 14'8": 1 pinhole diameter response 14'8"-15'10": No response	14'9"-15'0": stained with sheen, up to 0.25" x 1.5" NAPL droplets, 5-10 per inch	14'5"-15'2": pinhole diameter responses, 2-5 per inch	14'7"-15'2": 20%		14'0": 35.4 ppm 14'6": 33.4 ppm		
15	at 15'10": 1 pinhole diameter response 15'10"-16'3": No response	15'0"-15'2": stained with sheen, pinhole-0.125" diameter NAPL droplets, 5-10 per inch 15'2"-16'7": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch	15'2"-16'10": pinhole diameter responses, 5-10 per inch	15'2"-16'1": 10%	15' 2"-16' 7": dark gray, medium soft, moist silt, trace clay	15'0": 39.9 ppm 15'6": 67.4 ppm		
16	at 16'3": 2 pinhole diameter responses 16'3"-17'10": No response	16'7"-17'5": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	16'10"-17'1": No response	16'1"-16'7": 50% 16'7"-17'5": 5 - 10%	16' 7"-20' 2": olive gray, stiff, moist silt, trace clay	16'0": 35.8 ppm 16'6": 25.7 ppm		
17	at 17'10": 3 pinhole diameter responses 17'10"-19'3": No response	17'5"-18'6": stained with sheen, pinhole-0.25" diameter NAPL droplets, 15-20 per inch	17'1"-17'4": pinhole diameter responses, 10 per inch 17'4"-17'7": pinhole diameter responses, 2-5 per inch 17'7"-18'11": pinhole diameter responses, 15-20 per inch	17'5"-21": 50%		17'0": 93 ppm 17'6": 74.1 ppm		
18		18'6"-19'11": stained with sheen, pinhole-0.5" diameter NAPL droplets, 15-20 per inch	18'11"-20'2": pinhole diameter responses, 5-10 per inch			18'0": 164.2 ppm 18'6": 65.1 ppm		
19	at 19'3": 1 pinhole diameter response 19'3"-19'5": No response 19'5"-19'6": 20 pinhole-0.125" diameter responses 19'6"-19'11": No response at 19'11": 5 pinhole diameter responses 19'11"-20'1": No response	19'11"-20'2": stained with sheen, pinhole-0.25" diameter NAPL droplets, 10-15 per inch			at 19' 2": 0.5" x 0.125" red inclusion at 19' 6": 0.125" thick layer of dark red	19'0": 72.9 ppm 19'6": 143.9 ppm		
20	at 20'1": 2 pinhole diameter responses 20'1"-20'2": No response 20'2"-20'4": pinhole diameter responses, 2 per inch 20'4"-20'5": 15 pinhole-0.125" diameter responses 20'5"-21'0": pinhole-0.125" diameter responses, 2-5 per inch	20'2"-24'4": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20-25 per inch	20'2"-20'11": pinhole diameter responses, 10-20 per inch 20'11"-21'9": pinhole diameter responses, 0-2 per inch		20' 2"-24' 4": dark gray, medium stiff, moist silt, trace clay	20'0": 66 ppm 20'6": 176.1 ppm		
21	21'0"-21'3": 30% coverage 21'3"-21'6": pinhole-0.25" diameter responses, 5-10 per inch 21'6"-21'10": pinhole diameter responses, 0-2 per inch 21'10"-23'0": 0.25" responses, 15-20 per inch		21'9"-22'7": pinhole diameter responses, 5-10 per inch	21'0"-21'8": 90% 21'8"-23'3": 75%		21'0": 74.1 ppm 21'6": 192.8 ppm		
22			22'7"-24'4": pinhole diameter responses, 2-5 per inch			22'0": 72.1 ppm 22'6": 251.1 ppm		

LOCATION: VC-05b-1 DATE: 3/4/2018 TIME: 12:42 LOGGED BY: D. Burge DRILLING COMPANY: OSI		SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 29'4" NORTHING/EASTING: 718552.9, 633847.48 DEPTH TO TOP OF SEDIMENT: 5.1	Comments: 					
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
23	23'0"-23'5": pinhole diameter responses, 2 per inch 23'5"-23'7": 0.125" responses, 10 per inch 23'7"-23'11": pinhole diameter responses, 2 per inch 23'11"-24'1": 0.25" responses, 15-20 per inch			23'3"-24'0": 70%		23'0": 208.8 ppm 23'6": 216.7 ppm		
24	24'1"-24'3": 25% coverage 24'3"-24'4": 0.125" responses, 10-15 per inch 24'4"-24'10": 0.125" responses, 5-15 per inch 24'10"-25'2": 0.25" responses, 20% coverage	24'4"-26'3": stained with sheen, pinhole-0.125" diameter NAPL droplets, 20 per inch	24'4"-25'7": pinhole diameter responses, 0-5 per inch	24'0"-24'4": 90% 24'4"-26'7": 80 - 90%	24' 4"-29' 4": dark gray, stiff, moist silt, trace clay	24'0": 147.1 ppm 24'6": 243.3 ppm		
25	25'2"-26'5": 0.125" responses, 5-15 per inch at 25'9": 1 - 1.00" diameter response	at 25'10": 1 - 0.5" diameter NAPL droplet	25'7"-27'3": pinhole diameter responses, 5-10 per inch			25'0": 290.7 ppm 25'6": 398.8 ppm		
26	26'5"-26'11": pinhole diameter responses, 2-5 per inch 26'11"-27'4": 0.125" responses, 10 per inch	26'3"-29'4": stained with sheen, pinhole-0.125" diameter NAPL droplets, 10-15 per inch		26'7"-27'7": 75%		26'0": 247.3 ppm 26'6": 235.8 ppm		
27	27'4"-28'5": pinhole diameter responses, 2-5 per inch		27'3"-27'7": pinhole diameter responses, 10 per inch 27'7"-28'0": pinhole diameter responses, 0-2 per inch	27'7"-28'8": 80 - 90%		27'0": 294.1 ppm 27'6": 262 ppm		
28	28'5"-28'7": 0.125" responses, 2-5 per inch 28'7"-29'2": pinhole diameter responses, 0-5 per inch		28'0"-28'10": pinhole diameter responses, 5-10 per inch 28'10"-29'4": pinhole diameter responses, 10-15 per inch	28'8"-29'4": 50%		28'0": 302 ppm 28'6": 247.8 ppm		
29	29'2"-29'4": No response					29'0": 120.4 ppm		

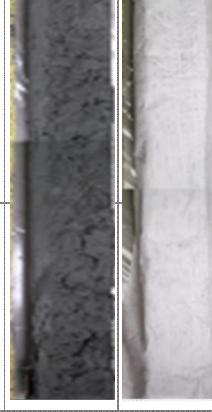
VC-05B-2



LOCATION: VC-05b-2 DATE: 3/6/2018 TIME: 10:21 LOGGED BY: D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'11" NORTHING/EASTING: 718523.15, 633962.24 DEPTH TO TOP OF SEDIMENT: 6.2	Comments:  				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
0	0'0"-6'11": No response	0'0"-3'2": stained without sheen at 0'0": staining with trace brown sheen on accumulated water when light is shined on it	0'0"-1'11": No response	0'0"-5'4": No response	0' 0"-0'4": olive gray to olive gray brown, very soft, wet silt, trace clay 0'4"-3'2": olive gray, soft, wet silt, trace clay at 0' 8": trace 0.125" diameter white shell fragments	0'6": 0.6 ppm		
1			at 1'11": 1 - pinhole diameter response 1'11"-2'10": No response		at 1' 7": 2 white shell fragments	1'0": 2.9 ppm 1'6": 5.9 ppm		
2			at 2'10": 2 - pinhole diameter responses 2'10"-3'3": No response			2'0": 3.3 ppm 2'6": 2.8 ppm		
3		3'2"-5'9": stained with sheen	at 3'3": 1 - pinhole diameter response 3'3"-3'5": No response at 3'5": 1 - pinhole diameter response 3'5"-3'7": No response at 3'7": 1 - pinhole diameter response 3'7"-3'9": No response at 3'9": 3 - pinhole diameter responses 3'9"-4'0": No response		3' 2"-7' 2": dark gray, soft, wet silt, trace clay	3'0": 115.2 ppm 3'6": 278 ppm		
4			at 4'0": 2 - pinhole diameter responses 4'0"-4'4": No response 4'4"-5'0": pinhole diameter responses, 1-2 per inch			4'0": 164.9 ppm 4'6": 134.8 ppm		
5		5'9"-6'0": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	5'0"-5'1": No response at 5'1": 2 - pinhole diameter responses 5'1"-5'3": No response 5'3"-5'7": pinhole diameter responses, 2 per inch 5'7"-5'11": pinhole diameter responses, 2-5 per inch 5'11"-6'6": pinhole diameter responses, 2 per inch	at 5'4": 1 - 0.25" x 0.125" response 5'4"-5'7": No response at 5'7": 3 - 0.125" diameter responses 5'7"-5'11": No response 5'11"-6'1": 1 - 0.25" diameter response, 5 - 0.125" diameter responses	at 5' 1": roots	5'0": 11 ppm 5'6": 13.4 ppm		
6	6'11"-7'2": pinhole diameter responses, 5-10 per inch	6'0"-6'8": stained with sheen 6'8"-7'2": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	6'6"-7'3": pinhole diameter responses, 2-5 per inch	6'1"-6'9": No response 6'9"-7'0": 10%		6'0": 19.3 ppm 6'6": 15.1 ppm		
7	7'2"-7'4": pinhole diameter responses, 5 per inch 7'4"-7'5": No response at 7'5": 1 pinhole diameter response at 7'6": 1 pinhole diameter response at 7'7": 2 pinhole diameter responses 7'7"-13'4": No response	7'2"-7'6": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch 7'6"-7'9": stained with sheen 7'9"-8'3": stained with sheen, pinhole diameter NAPL droplets, 2-5 per inch	7'3"-8'11": pinhole diameter responses, 0-2 per inch	7'0"-7'9": 25% 7'9"-8'1": No response	7'2"-7'6": dark gray, very soft, wet silt, trace clay 7'6"-7'9": dark gray, soft, wet silt, trace clay 7'9"-12'6": dark gray, soft, wet silt, trace clay, trace to no fibrous material	7'0": 31.5 ppm 7'6": 8.2 ppm		

LOCATION: VC-05b-2 DATE: 3/6/2018 TIME: 10:21 LOGGED BY: D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'11" NORTHING/EASTING: 718523.15, 633962.24 DEPTH TO TOP OF SEDIMENT: 6.2	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
8		8'3"-13'5": stained with sheen	8'11"-9'3": pinhole diameter responses, 2-5 per inch	at 8'1": 2 - 0.125" diameter responses, 1 - 0.25" diameter response 8'1"-9'8": No response		8'0": 13.6 ppm 8'6": 8.1 ppm		
9			9'3"-9'7": No response 9'7"-11'1": pinhole diameter responses, 0-2 per inch	at 9'8": 4 - 0.125" diameter responses 9'8"-12'4": No response		9'0": 8.1 ppm 9'6": 10.2 ppm		
10						10'0": 11.8 ppm 10'6": 12.3 ppm		
11			11'1"-11'9": pinhole diameter responses, 2-5 per inch 11'9"-12'4": pinhole diameter responses, 0-2 per inch		at 11' 1": 0.5" diameter white shell	11'0": 13.6 ppm 11'6": 32 ppm		
12			12'4"-12'9": pinhole diameter responses, 5 per inch 12'9"-13'10": pinhole diameter responses, 0-2 per inch	at 12'4": 3 - 0.25" diameter responses 12'4"-12'8": No response at 12'8": 4 - 0.125" diameter responses 12'8"-13'3": No response	12' 6"-12' 9": dark gray, soft to medium soft, very moist silt, trace clay, fibrous material trace to none 12' 9"-17' 9": olive gray, medium soft, very moist silt and trace clay	12'0": 86.1 ppm 12'6": 114.1 ppm		
13	13'4"-13'6": 6 - 0.125" mustard yellow responses 13'6"-13'7": No response at 13'7": 1 - 0.125" x 0.25" yellow response 13'7"-15'2": No response	13'5"-13'9": stained with sheen, pinhole diameter NAPL droplets, 5 per inch 13'9"-14'9": stained with sheen, pinhole diameter NAPL droplets, 0-2 per inch	13'1"-13'6": 20% 13'6"-13'9": 75% 13'10"-15'1": pinhole diameter responses, 10-15 per inch	at 13'3": 1 - 0.25" diameter response 13'3"-14'3": No response	at 13' 8": 0.5" long wood fragment	13'0": 14 ppm 13'6": 51.7 ppm		
14		14'9"-15'1": stained with sheen, pinhole diameter NAPL droplets, 5-10 per inch	at 14'2": 1 - 0.25" response at 14'10": 1 - 0.125" response	at 14'3": 1 - 0.5" diameter response 14'3"-15'1": No response		14'0": 12.4 ppm 14'6": 18 ppm		
15	15'2"-15'3": 15 pinhole diameter responses 15'3"-15'5": No response 15'5"-15'9": pinhole diameter responses, 2-5 per inch 15'9"-17'0": No response at 15'9": 1 - 0.125" response	15'1"-15'6": stained with sheen, pinhole diameter NAPL droplets, 10-15 per inch 15'6"-16'1": stained with sheen	at 15'0": 1 - 0.125" response 15'1"-16'9": pinhole diameter responses, 2-5 per inch	15'1"-15'8": 50% 15'8"-16'2": No response	at 15' 9": 3" long twig	15'0": 78.8 ppm 15'6": 170.6 ppm		

LOCATION: VC-05b-2 DATE: 3/6/2018 TIME: 10:21 LOGGED BY: D. Burge DRILLING COMPANY: OSI			SAMPLING METHOD: Vibracore CORE DIAMETER: 4" CORE DEPTH (RECOVERY): 26'11" NORTHING/EASTING: 718523.15, 633962.24 DEPTH TO TOP OF SEDIMENT: 6.2	Comments:				
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
16		16'1"-17'2": stained with sheen, pinhole diameter NAPL droplets, 5 per inch	16'9"-17'5": pinhole diameter responses, 5 per inch	16'2"-16'6": 10% 16'6"-16'11": 25% 16'11"-18'8": 50%		16'0": 60.4 ppm 16'6": 108.2 ppm		
17	17'0"-17'8": pinhole-0.125" diameter responses, 5-10 per inch 17'8"-17'9": 2 pinhole diameter responses at 17'9": 1 pinhole diameter response 17'9"-17'10": No response 17'10"-18'0": pinhole-0.125" diameter responses, 5-10 per inch	17'2"-17'9": stained with sheen, pinhole-0.125" diameter NAPL droplets, 2-5 per inch 17'9"-18'5": stained with sheen, pinhole-0.125" diameter NAPL droplets, 15-20 per inch	17'5"-17'9": pinhole diameter responses, 0-2 per inch 17'9"-18'6": pinhole diameter responses, 2-5 per inch		17' 9"-19' 9": dark gray, medium stiff, moist silt, trace clay	17'0": 83.1 ppm 17'6": 88.2 ppm		
18	18'0"-18'6": pinhole diameter responses, 5-10 per inch 18'6"-19'0": pinhole-0.25" diameter responses, 5-15 per inch	18'5"-19'0": stained with sheen, pinhole diameter NAPL droplets, 20-25 per inch	18'6"-18'11": pinhole diameter responses, 5-10 per inch 18'11"-19'5": pinhole diameter responses, 10 per inch	18'8"-19'4": 75%		18'0": 122.2 ppm 18'6": 211.1 ppm		
19	19'0"-19'7": pinhole-0.125" diameter responses, 0-5 per inch, 20% coverage	19'0"-19'9": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch 19'9"-20'5": stained with sheen along partings, pinhole diameter NAPL droplets, 5-10 per inch	19'5"-19'7": No response at 19'7": 1 - pinhole diameter response 19'7"-20'9": No response	19'4"-19'7": 20% 19'7"-20'10": 75%	19' 9"-20' 5": olive gray, medium stiff, moist silt, trace clay, trace white shell fragments <0.25" diameter	19'0": 181.9 ppm 19'6": 244.2 ppm		
20	20'2"-20'8": pinhole-0.50" diameter responses, 10-15 per inch 20'8"-20'10": pinhole diameter responses, 10-15 per inch 20'10"-21'0": No response	20'5"-20'9": stained with sheen, pinhole diameter NAPL droplets, 15-20 per inch 20'9"-21'2": 2 diagonal partings with sheen, pinhole diameter NAPL droplets, 5 per inch	at 20'9": 1 - pinhole diameter response 20'9"-20'11": No response at 20'11": 2 - pinhole diameter responses 20'11"-21'2": No response	20'10"-21'4": 20%	20' 5"-20' 9": dark gray, medium stiff, moist silt, trace clay, trace white shell fragments <0.25" diameter 20' 9"-23' 10": olive gray, medium stiff, moist silt, trace white shell fragments <0.25" diameter at 20' 9": fine root fragments	20'0": 312.7 ppm 20'6": 281.7 ppm		
21	at 21'0": 1 - 0.125" response at 21'1": 1 - 0.125" response at 21'4": 5 pinhole diameter responses at 21'5": 1 - 0.125" response 21'5"-26'11": No response	21'2"-21'11": staining without sheen, 1 - diagonal parting with sheen 21'11"-22'0": stained without sheen	at 21'2": 1 - pinhole diameter response 21'2"-21'5": No response at 21'5": 3 - 0.125" responses 21'5"-21'10": No response at 21'10": 3 - pinhole diameter responses 21'10"-26'11": No response	21'4"-21'11": 10 -15% 21'11"-23'1": No response		21'0": 111.3 ppm 21'6": 77.5 ppm		
22		at 22'0": horizontal parting, 50% has sheen 22'0"-23'0": stained without sheen			at 22' 0": horizontal parting with with shell fragmnents <0.125" diameter	22'0": 67.1 ppm 22'6": 62.7 ppm		
23		at 23'0": parting, 75% has sheen 23'0"-23'4": stained without sheen at 23'4": parting, 10% has sheen sheen 23'4"-23'10": stained without sheen 23'10"-26'11": None		at 23'1": 1 - 0.25" x 1" response 23'1"-26'11": No response	at 23' 0": parting with shell fragments <0.25" diameter at 23' 4": parting with shell fragments <0.25" diameter 23' 10"-26' 11": olive gray, green gray, medium stiff, moist silt, trace white shell fragments <0.25" diameter	23'0": 56.1 ppm 23'6": 28.4 ppm		

LOCATION: VC-05b-2	SAMPLING METHOD: Vibracore	Comments:						
DATE: 3/6/2018	CORE DIAMETER: 4"							
TIME: 10:21	CORE DEPTH (RECOVERY): 26'11"							
LOGGED BY: D. Burge	NORTHING/EASTING: 718523.15, 633962.24							
DRILLING COMPANY: OSI	DEPTH TO TOP OF SEDIMENT: 6.2							
Depth	FLUTe Paper Reactions	Visual NAPL	UV (White-Blue)	UV (Red-Orange)	Lithology and Other Observations	PID	Photograph	FLUTe Paper
24					at 24' 0": 1" diameter white shell	24'0": 14.5 ppm 24'6": 17.4 ppm		
25						25'0": 5.4 ppm 25'6": 5.6 ppm		
26						26'0": 5 ppm 26'6": 5.4 ppm		